



ENGINEERING PROCEDURE MANUAL (EPM)

GAM/EPM/SA/ISS.1

GALAXY AEROSPACE (M) SDN. BHD.

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COPY NO. 06 – GAM Internal Data Server

ENGINEERING PROCEDURE MANUAL

BINDING STATEMENT

- a. Forming the basis for approval to AMO in particular, this document governs the technical and organisational as well as the personnel-related prerequisites for proof of compliance and procedure of maintenance activities under GALAXY AEROSPACE (M) SDN. BHD.
- b. These procedures are approved by the undersigned and must be complied with, as applicable, when work is being progressed under GALAXY AEROSPACE (M) SDN. BHD.
- c. All the significant changes in this Engineering Procedure Manual (EPM) shall be informed via GAMS OA (Official Announcement).
- d. This EPM is to be updated accordingly to comply with any new or amended regulation published by the Directorate General Technical Airworthiness and State Airworthiness Authority from time to time.
- e. Access is permitted to the Directorate General Technical Airworthiness to all locations of GALAXY AEROSPACE (M) SDN. BHD., its partners, its subcontractors, and its suppliers for checking whenever deemed required by the Directorate General Technical Airworthiness and State Airworthiness Authority.
- f. EPM will be reviewed at intervals not exceeding twelve (12) months or whenever significant changes occur which affect the content of the EPM.
- g. GALAXY AEROSPACE (M) SDN. BHD. will assure sufficient and qualified staff as well as education and training of the personnel.

GALAXY AEROSPACE (M) SDN. BHD. (1040262-D)

DOCUMENT REFERENCE:	GAM/EPM/SA		DATE:	01 st FEB 2021
ISSUE:	1	AMENDMENT:	0	PAGE: EPM 0-01 1 of 1

ENGINEERING PROCEDURE MANUAL

AUTHORISATION

The Engineering Procedure Manual (EPM) Document No. **GAM/EPM/SA/ISS.1** is hereby prepared by the Engineering Manager and accepted by Quality Manager.

The Senior Maintenance Manager is responsible to ensure that the policies, procedures and instruction contained in this manual are adhered to by all persons employed in the GAM Engineering Department in the execution of their duties.

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AMENDMENT RECORD

Each amendment of this document will be accompanied by a letter of transmittal showing the pages to be removed and those to be inserted. All pages will show the date of issue which can be cross checked with the list of effective pages to ensure it's current.

Rev. No.	Date Amendment	Details of Amendment	Page No.	Date Insertion	Insertion By
0	01 ST FEB 2021	Initial issue of EPM	All	01/02/2021	Syaiful
01	20 TH MAY 2021	EPM 0-05 Addition EPM 1-14 on Table of Contents	1	20/05/2021	Syaiful
	20 TH MAY 2021	EPM 0-06 Amendments in according with the part of the EPM involved.	1,2	20/05/2021	Syaiful
	20 TH MAY 2021	EPM 1-01 Amendment on Clausa 2.7.	1	20/05/2021	Syaiful
	20 TH MAY 2021	EPM 1-14 Alternative Facilities. Addition of EPM procedure.	1, 2	20/05/2021	Syaiful
	20 TH MAY 2021	EPM 2-03 Addition clausa 1.2, 1.6, 1.7, 1.8, 3.2 and 4.6 Para (d).	1,2,3	20/05/2021	Syaiful
	20 TH MAY 2021	EPM 2-05 Additional of new procedure for Fabrication of tools.	1, 2	20/05/2021	Syaiful
	20 TH MAY 2021	EPM 4-01 Amendment on Clausa 1.3.	1	20/05/2021	Syaiful
02	09 TH DEC 2021	EPM 0-02 Amendment on sentence prepared by Senior Maintenance Manager to Engineering Manager	1	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 0-03 Updated the amendment and addition of page.	1	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 0-04 Amendment of Distribution Copy No.1 Senior Maintenance Manager to Engineering Manager and Additional of Copy No. 7 – 10 for Senior Maintenance Manager according to base operation /aircraft type.	1	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 0-05 Amendment on EPM 2-04 removed from EPM and Additional of EPM 2-05. Additional of Appendix column.	2	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 0-06 Amendments in according with the part of the EPM involved, Amendment No. date and including column of 'Prepared by' position.	1,2 & 3	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 0-07 Addition of abbreviations AEO.	1	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 0-08 Addition of Clausa 1.4 and Amendment Clausa 3.1.	1,2	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 1-14 Removed on Clausa 1.3 Para (a,b and c) and Para 1.4.	1	09/12/2021	Syaiful
09 TH DEC 2021	EPM 2-01 Additional on Clausa 4.0 – Unserviceable Aircraft Component and Material.	3	09/12/2021	Syaiful	

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02	09 TH DEC 2021	EPM 2-03 Removed on Clausa 1.6 Para (a and b). Para (c and d) replaced Para (a and b). Additional on Clausa 5.0 – Maintenance Tools Control during period of operation.	1	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 2-04 Procedure removed. Some of procedure was included on EPM 2-01.	1	09/12/2021	Syaiful
	09 TH DEC 2021	EPM 3-06 Amendment on Clausa 1.5, 2.13 and 3.7 Para (a). Para (c) has been removed.	1,3 & 4	09/12/2021	Syaiful
	09 TH DEC 2021	APPENDIX 1 Removed copy of form from EPM. A copy of the form can be referenced through the GAMS Portal. Additional new form No.44 – GAM/E-062A Alternate Tooling Records Form.	2	09/12/2021	Syaiful
03	11 TH JAN 2022	EPM 0-03 Updated amendment involves and addition of pages.	1,2	11/01/2022	Syaiful
	11 TH JAN 2022	EPM 0-05 Amendment on Table of Content for EPM 2-03 quantity 3 to 4 pages.	2	11/01/2022	Syaiful
	11 TH JAN 2022	EPM 0-06 Amendments in according with the part of the EPM involved, Amendment No. and date.	1,2 & 3	11/01/2022	Syaiful
	11 TH JAN 2022	EPM 1-01 Amendment on Clausa 2.7.	2	11/01/2022	Syaiful
	11 TH JAN 2022	EPM 2-03 Additional on Clausa 6.0 – Tools and Special Equipment Loan or rental.	4	11/01/2022	Syaiful
	11 TH JAN 2022	EPM 3-04 Amendments on Clausa 2.1, 2.2, 2.3 and 2.5. Additional new Clausa 2.6, 2.7, 2.8, 2.9 and 2.14 Removed Clausa 2.13 and 2.15	1 & 2	11/01/2022	Syaiful
	11 TH JAN 2022	EPM 3-05 Amendments on Clausa 2.3 Para ii., 2.9 and 2.10.	2 & 3	11/01/2022	Syaiful
	11 TH JAN 2022	APPENDIX 1 Removed Form No.4 (GAM/E-001E Independent Inspection) from list. Additional new form on the list No.46 (GAM/E-065 Tools Loan Register).	2	11/01/2022	Syaiful
04	15 TH APRIL 2022	EPM 0-03 Updated the amendment.	2	15/04/2022	Syaiful
	15 TH APRIL 2022	EPM 0-06 Amendments in according with the part of the EPM involved, Amendment No. and date.	1	15/04/2022	Syaiful
	15 TH APRIL 2022	EPM 1-03 Amendment on Clausa 2.2	2	15/04/2022	Syaiful
05	08 TH JULY 2022	EPM 0-03 Changed column No. to Revision number and updated amendment.	2	08/07/2022	Syaiful
	08 TH JULY 2022	EPM 0-06 Amendments in according with the part of the EPM involved, Amendment No. and date.	1	08/07/2022	Syaiful
	08 TH JULY 2022	EPM 4-01 Clausu 2.0 Procedure. Amended on content of clausa 2.1 – 2.10	2	08/07/2022	Syaiful

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06	19 TH AUGUST 2022	EPM 0-03 Updated the amendment.	3	19/08/2022	Syaiful
	19 TH AUGUST 2022	EPM 0-04 Additional on Distribution list Copy No. 11 – Senior Maintenance Manager (SMM) AS365N3 MMEA.	1	19/08/2022	Syaiful
	19 TH AUGUST 2022	EPM 0-05 Amendment No of pages of EPM 0-05 and additional of EPM 4-05 on Table of content.	2	19/08/2022	Syaiful
	19 TH AUGUST 2022	EPM 0-06 Amendment in according with the part of the EPM involved on Amend. No. and Date.	1	19/08/2022	Syaiful
	19 TH AUGUST 2022	EPM 1-14 Additional and amendment on Clausa 1.2 and 1.3.	1	19/08/2022	Syaiful
	19 TH AUGUST 2022	EPM 4-05 Technical Records Procedure. Additional new procedure.	1-5	19/08/2022	Syaiful
	19 TH AUGUST 2022	Appendix 1 Additional new form on the list No.47 (GAM/E-074 Aircraft Deferred Defect Form)	2	19/08/2022	Syaiful
07	30 TH MARCH 2023	EPM 0-03 Updated the amendment records.	3	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 0-05 <ul style="list-style-type: none"> • Amended quantity of page EPM 0-03 from 3 to 5 pages. • Amended quantity of page EPM 3-01 from 4 to 5 pages. • Amended quantity of page EPM 3-12 from 3 to 9 pages. 	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 0-06 Amendments in according with the part of the EPM involved, Amendment No. and date.	1-3	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 0-08 Amended procedure on Clausa 2.1	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 1-01 Additional procedure Clausa 2.9.	2	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 1-07 Additional procedure Clausa 8.0.	4	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 1-11 Amended on Clausa 3.2 Para (e) and (f).	3	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 2-01 <ul style="list-style-type: none"> • Amended procedure on Clausa 2.3. • Amended form name on Clausa 2.4. Serviceable Tag to Serviceable Label. 	3	30/03/2023	Syaiful

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07	30 TH MARCH 2023	EPM 2-03 • Amended on Clausa 1.7 name of form. GAM/E-043 from Out of Base Tool Control Register to Out-Base Tool Control Record. • Additional of Clausa 7.0 - Tool or Special Equipment Loan or Rental at Alternative Facilities.	1,4	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-01 • Amended on Clausa 2.1 Para (a) form number GAM/Q-012A to GAM/E-012 and Para (b) added statement of "Supporting document". • Amended on Clausa 2.2 Para (a) and (b). Assessment Process procedure. • Amended sentence to include "revoke" word for better understanding on Clausa 2.6 Para (a) and (b). • Additional new procedure on Clausa 2.6 Para (c).	1,4	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-03 Amended on Clausa 2.2 form number GAM/Q-012A to GAM/E-012.	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-06 Amended on Clausa 2.5 form number GAM/Q-008A to GAM/Q-008B.	2	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-07 Amended on Clausa 2.2 form number GAM/Q008 to GAM/Q008B.	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-08 Amended on Clausa 2.2 form number GAM/Q008 to GAM/Q008B.	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-10 Amended on Clausa 2.4 form number GAM/Q008 to GAM/Q008B.	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 3-12 • Amended on Clausa 2.5 Function details. • Amended on Clausa 3.2 (e) type of course / training must attended. • Amended Table 1: Personnel Approval System to Clausa 4.0 for better explanation. and understanding.	1-9	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 4-01 Amended on Clausa 2.1, 2.2, 2.3, 2.4, 2.5, 2.7 and 2.11 to add new explanations and instruction	1	30/03/2023	Syaiful
	30 TH MARCH 2023	EPM 4-02 Amended procedure on Clausa 2.1 – 2.3.	1	30/03/2023	Syaiful
30 TH MARCH 2023	EPM 4-03 Amended on Clausa 2.1 form register number GAM/E-003 to GAM/E-002.	1	30/03/2023	Syaiful	

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07	30 TH MARCH 2023	APPENDIX 1 Amended and updated list of the form. <ul style="list-style-type: none"> • GAM/E-002A - Removed capital 'A' • GAM/E-003 - Removed from the list. • GAM/E-005 - Removed copy of Rev.1. • GAM/E-025 - Added on the list. • GAM/E-043 - Added on the list. • GAM/E-056 - Added on the list. • GAM/E-080 - Added on the list. • GAM/Q-045 - Added on the list. • GAM/Q-048 - Added on the list. • GAM/Q-057 - Added on the list. • GAM/Q-067 - Added on the list. • GAM/Q-070 - Added on the list. • GAM/Q-071 - Added on the list. 	1-2	30/03/2023	Syaiful

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| Copy No. 4 | : GAM Line Maintenance | - Hard Copy |
| Copy No. 5 | : GAM Technical Records | - Hard Copy |
| Copy No. 6 | : GAM Internal Data Server.
(Accessible to all GAM Engineering and QA personnel) | - Soft Copy |
| Copy No.7 | : Senior Maintenance Manager (SMM) –
AS555SN RMN | - Hard Copy |
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SUPER LYNX MK100 RMN | - Hard Copy |
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0-07	Abbreviations	1-2	1	1	09 th Dec 2021
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ENGINEERING PROCEDURE MANUAL

Prepared by:

Syafrul Yamani bin Safruddin



.....
Senior Maintenance Manager

Date: **30 MAR 2023**

Accepted by:

Omar bin Ahmad



.....
Quality Manager

Date: **30 MAR 2023**

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ABBREVIATIONS

1.0 List of Abbreviations.

AAT	Airworthiness Approval Tag
AD	Airworthiness Directives
ADDs	Acceptable Deferred Defects
AEO	Authorised Engineering Organization
AM	Accountable Manager (GMD/MD)
AMM	Aircraft Maintenance Manual
AMO	Approved Maintenance Organisation
ARC	Authorized Release Certificate
ATP	Authorized Tradespersons
ATC	Air Traffic Controller
CAAM	Civil Aviation Authority of Malaysia
CAMO	Continuous Airworthiness Maintenance Organisation
CFU	Carried Forward Unserviceabilities
CMM	Component Maintenance Manual
CRS	Certificate of Release to Service
COC	Certificate of Conformity
DAR	Design Acceptance Representatives
DCAM	Department of Civil Aviation Malaysia
DGTA	Directorate General Technical Airworthiness
EASA	European Aviation Safety Agency
EGR	Engine Ground Run
EPM	Engineering Procedure Manual
FAA	Federal Aviation Administration
FOD	Foreign Object Damage
GAM	Galaxy Aerospace (M) Sdn Bhd
GiN	Goods in Note
GSE	Ground Support Equipment
LAE	License Aircraft Engineer
MD	Managing Director
MCF	Maintenance Carried Forward
MI/S	Maintenance Inspector/Supervisor
MM	Maintenance Manager
MMEL/MEL	Master Minimum Equipment List/Minimum Equipment List
MMP	Maintenance Management Plan
MOC	Management of Change
MRO	Maintenance Repair and Overhaul
NCF	Non-Compliance Finding
NCR	Non-Conformance Request
NTP	Non-Technical Personnel
OEM	Original Equipment Manufacturer
PO	Purchase Order
POL	Petroleum, Oil and Lubrication

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QA	Quality Assurance
QAI	Quality Assurance Inspector
QD	Quality Department
QM	Quality Manager
SAO	State Aircraft Operators
SB	Service Bulletin
SMM	Senior Maintenance Manager
TAMM	Technical Airworthiness Management Manual
TAR	Technical Airworthiness Regulatory
TIC	Technical Instruction Compliance
TSO	Time Since Overhaul
TSN	Time Since New

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ADMINISTRATION AND CONTROL

1.0 Introduction.

1.1 Purpose.

- a. The purpose of this Engineering Procedure Manual (EPM) is to offer guidance to staff the process and procedure within the AMO.
- b. The following procedure ensures compliance with the Directorate General Technical Airworthiness (DGTA) or Technical Airworthiness Management Manual (TAMM) Regulation and the manufacturer recommendation.

1.2 Effectivity.

- a. This section covers for Engineering Procedure Manual EPM) document.

1.3 Format.

- a. Paper copies of this manual are distributed in accordance with the Distribution List.

1.4 Internal Publication.

- a. It can be referred to the Internal Publication Masterlist – GAM/Q-067. Sample of forms specified in the masterlist are available at GAMS Portal.

2.0 System of Amendment and Revision.

2.1 Method of Amendment.

All amendments will be in the form of printed individual replacement of the EPM Part. Handwritten amendments are not permitted. Each page of the manual will show the date of issue. Left side vertical marginal lines will indicate a changed or revised portion of the text.

Each amendment will be accompanied by a revised List of Approved Pages, with their dates of issue, and acknowledge form to manual holder. Whenever a change is made to a page of the EPM Part, the amendment will show the new date.

A record of amendments incorporated is shown on the Amendment Record page. This page will not be replaced but will rather accrue signatures showing the amendment history.

2.2 Source of Amendments.

Amendments may be suggested by any AMO personnel. Amendments may be prompted by:

- a. Editorial changes.
- b. Identification of inadequacies or deficiencies.

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- c. Changes in GAM activities.
- d. Changes in GAM Bases.
- e. Changes in customer requirements or standards.
- f. Changes in Legislation or Regulations.
- g. Changes in Company Management Structure.
- h. Changes in relation to Company Capability and its procedure.

2.3 Amendment Proposals.

Amendment proposals should be made through the Publication Amendment Request, see Section 3.0 below, to the Senior Maintenance Manager (SMM) including:

- a. Manual part and paragraph affected.
- b. Reason for change.
- c. Proposed change.
- d. Management of Change, MOC (if necessary).

The Senior Maintenance Manager (SMM) will comment and forward it to the Quality Manager (QM) for review.

The proposal will be further assessed for a decision on incorporation. The SMM and QM will communicate the result to the person who initiated the request.

2.4 Distribution.

The Company will ensure that all personnel in Distribution List to have easy access to a copy of the EPM.

3.0 Amendment Process Form.

- 3.1 Amendment requests to add, delete, or amend the EPM can be made using the **Document Change Request – GAM/Q-070** as per MMP Part.

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INDEPENDENT MAINTENANCE INSPECTION

1.0 Introduction

- 1.1 TAMM regulation 5.1.6 specify that Independent Maintenance Inspections are to be carried out following initial assembly or any disturbance (replaced, adjusted or reconnected on aircraft) of the following:
- a. Flying control and associated equipment.
 - b. Engine control and associated equipment.
 - c. Undercarriage control, brake and steering controls and associated equipment.
 - d. Installed airborne oxygen equipment.
 - e. Aircrew escape and survival equipment.
 - f. Explosive ordinance and associated equipment.
- 1.2 In addition to items in para 1.1, other safety-critical items or systems may also be identified and listed in maintenance documents by SMM for the aircraft that shall be subjected to Independent Maintenance Inspection.
- 1.3 The Independent Maintenance Inspection is defined as an inspection first made and certified by a qualified person (MI/S) and subsequently made and certified by a second qualified person (MI/S).
- 1.4 The requirement was once first inspection is completed and immediately follow by a second inspection, totally independent. It is to be noted that both inspections carry equal responsibility. Control system subject to independent maintenance inspection must not be disturbed again or re-adjusted after the first part of independent maintenance inspection has been certified.

2.0 Procedure

- 2.1 Inspections are to be made to ensure that items are correctly assembled, adjusted and secured. A full range, freedom of movement and correct sense of the control is obtained in response to the movement of the pilot's control.
- 2.2 Consideration is to be given to areas where control runs are obscured by panels, etc., so that independent maintenance inspections may be carried out prior to closing and, if necessary, certified separately.

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- 2.3 Both parts of Independent Maintenance Inspection should be carried out strictly in accordance with applicable inspection as prescribed in relevant Maintenance Manual or approved instructions.

- 2.4 In some circumstances, due to peculiarities of assembly, it may be necessary for both parts of Independent Maintenance Inspection to be made simultaneously.

- 2.5 If a control system is disturbed after completion of Independent Maintenance Inspection that part which has been disturbed shall again be inspected independently before flight.

- 2.6 Independent Maintenance Inspection shall be the final operation to establish integrity of control system when all work has been completed.

- 2.7 The Independent Maintenance Inspection entry shall be made which cross-referred to the item and task number that required the inspection in the applicable **GAM/E-001B Worksheet**.

- 2.8 If a control system is disturbed at any time, including during routine maintenance, an entry is to be made in the Worksheet specifying the system and stating that Independent Maintenance Inspections have been carried out.

- 2.9 All Torque value and special tools which is prescribed in relevant Maintenance Manual or approved instructions during independent maintenance inspection must be specified in the worksheet.

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GROUND RUNNING PROCEDURE

1.0 Introduction

1.1 Ground run is part of maintenance requirement to prove serviceability, defect trouble shooting and testing of aircraft and the aeronautical products. As the name implies the procedure shall not make the aircraft lift or airborne.

2.0 Initial Requirement.

2.1 Only competent personnel (MI/S) authorized by the SMM shall be in-charged of ground run operations.

2.2 The personnel authorized for the operation is responsible to make sure the engine ground run been carried out in safe and correct manner.

2.3 Ground run for helicopter strictly to be performed by a **Pilot only**.

2.4 Before any ground run, all personnel involved must be briefed by MI/S on the requirement for the procedure and determine actions in the event of an emergency.

2.5 All documentation and maintenance requirement i.e. pre-flight check, ground run form must be completed and signed prior to the ground run.

2.6 **GAM/E-049 (Ground Run / Test Flight Report Form)** to be filled by MI/S stating the task been performed that requires the run and description of test require to be performed by the pilot during the run.

3.0 Before Starting

3.1 An aircraft and surrounding check must be carried out by the MI/S to cover the following:

- a. Ground run shall only be carried out in an appropriate ground run area.
- b. Ensure that the area is free from FOD such as debris, oil or fuel spillage, and any equipment such as access stands, steps and servicing trolleys are moved to a safe area.
- c. Check on the aircraft for any obstructions such as intake blanks or covers are removed.
- d. All panels, hatches and fairings are closed and secured.
- e. Main wheel chocks (if applicable) are in place and correctly positioned.

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- 3.2 The aircraft parking brake must be set, ensuring that there is sufficient system pressure, and that pressure to the wheel brake units is shown on the cockpit gauge (if applicable).
- 3.3 A minimum of two persons (Maintenance Personnel) are required during the ground run. One personnel responsible to give start clearance and to act as a marshaller during the ground run to prevent unauthorised person or vehicle entering the EGR area and another personnel is in-charge of fire extinguisher. The cockpit operation shall only be performed by a pilot (For helicopter).
- 3.4 A ground headset must be used by the personnel in-charge of the clearance to maintain communication with the cockpit personnel when direct communication is deemed impossible.
- 3.5 MI/S must ensure that both personnel are clearly briefed on their duties and responsibilities during the ground run.
- 3.6 Permission from the control tower must be established prior to the ground run and communications must be maintained at all time during the ground run.
- 3.7 'All Clear' signal must be obtained from the marshaller before starting an engine.

4.0 After Starting

- 4.1 When the engine(s) have stabilised at idle speed, the ground power unit should be disconnected (if utilized) and moved to a safe distance away from the aircraft.
- 4.2 The marshaller should remain in contact with the cockpit personnel by head set or where extended time are required should remain at a safe distance being clearly visible from the cockpit.
- 4.3 In addition to the precautions laid down in this instruction other safety measures must also be strictly observed, (e. g. wearing of ear defenders and safety vest).

5.0 Engine Handling

- 5.1 Any restricted running speeds should be avoided whenever possible and take-off power only used when essential to the test in progress.
- 5.2 When instrumentation is suspected to be faulty or a control adjustment is being checked, extreme caution is to be exercised when nearing to maximum power to avoid possible over-speed/over-temperature.
- 5.3 All the requirement, procedure and safety precaution stipulated in the Maintenance Manual and Flight Manual must be followed.

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6.0 Shut Down

6.1 A period of idle running must be allowed for the engine(s) temperatures to stabilise. This time varies with different installations and the Flight Manual is to be referred.

7.0 Recording

7.1 All running times and fuel burns are to be recorded in the Technical Log. Any defects noted in any system during the ground run are also to be recorded.

7.2 Both MI/S and Pilot involved in the procedure have to sign off the **GAM/E-049 (Ground Run / Test Flight Report Form)** upon completion.

8.0 Aircraft Taxing

8.1 Taxing an aircraft is prohibited for all Maintenance Crew.

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EPM 1-02 GROUND RUNNING PROCEDURES	
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> INITIAL REQUIREMENT </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> GAME-048 Raised by M/S </div>
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> BEFORE STARTING </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> <ul style="list-style-type: none"> * Check Aircraft and surrounding area. * Aircraft Parking Brake must set / Towing wheel removal. * Minimum of two maintenance personnel. * Used Ground Headset. * Permission control tower (if applicable). </div>
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> AFTER STARTING </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> <ul style="list-style-type: none"> * GPU disconnected and moved to safe distance. * Marshallers remain in contact. * Precaution laid down. </div>
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> ENGINE HANDLING </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> <ul style="list-style-type: none"> * Any restricted running speed should avoid. * Extreme Caution when hearing max. power. * Followed procedure and safety stipulated in the MM and Flight Manual. </div>
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> SHUTDOWN </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> <ul style="list-style-type: none"> * A period of idle running must be allowed for the Engine temperature stabilise. * Refer Flight Manual for different of time varies. </div>
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> RECORDING </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> <ul style="list-style-type: none"> * Recorded all running time, fuel burn and any defects in Tech Log. * M/S and Pilot sign off GAME-048. </div>
<div style="border: 1px solid black; padding: 5px; background-color: #c6e0b4;"> AIRCRAFT TAXING </div>	<div style="border: 1px solid black; padding: 10px; background-color: #fff2cc;"> <ul style="list-style-type: none"> * Taxing an aircraft is prohibited for all Maintenance Crew. </div>

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FLIGHT TEST

1.0 Introduction

1.1. Aircraft Flight Test is part of maintenance requirement and activity to prove serviceability, vibration tuning on the Main and Tail Rotor, defect trouble shooting and testing of aircraft and the aeronautical products.

1.2. Flight Test requirements fall into three categories:

a. Mandatory Requirements

- i. Aircraft Flight Testing for state registered aircraft is in compliance to TAMM Regulation 5.1.12.
- ii. Whenever it is being called for in the respective OEM's Maintenance Manual.

b. Organisation Requirements

- i. Flight test following any major inspection, repair, modification or multiple disconnections of the primary control systems as determined by the AEO or DAR.

c. Discretionary

- i. At the discretion of the SMM a flight test should be carried out whenever the integrity or correct functioning of a system affecting airworthiness cannot be satisfactorily proved by inspection or ground testing.
- ii. In order to aid fault diagnosis where ground tests are inadequate and at the discretion of the personnel in paragraph above.

NOTE:

- MI/S is authorized by SMM, where necessary, will follow a flight test as an observer to assist flight crew in recording instrument readings.
- No other personnel are to be onboard of the aircraft other than flight crew and authorized observer.
- The flight test shall be carried out in accordance with the OEM Flight Manual.
- Commander of the aircraft is the person responsible for the flight test procedure.
- Authorized observer shall take record all the instrument parameter as required by the flight test requirement.

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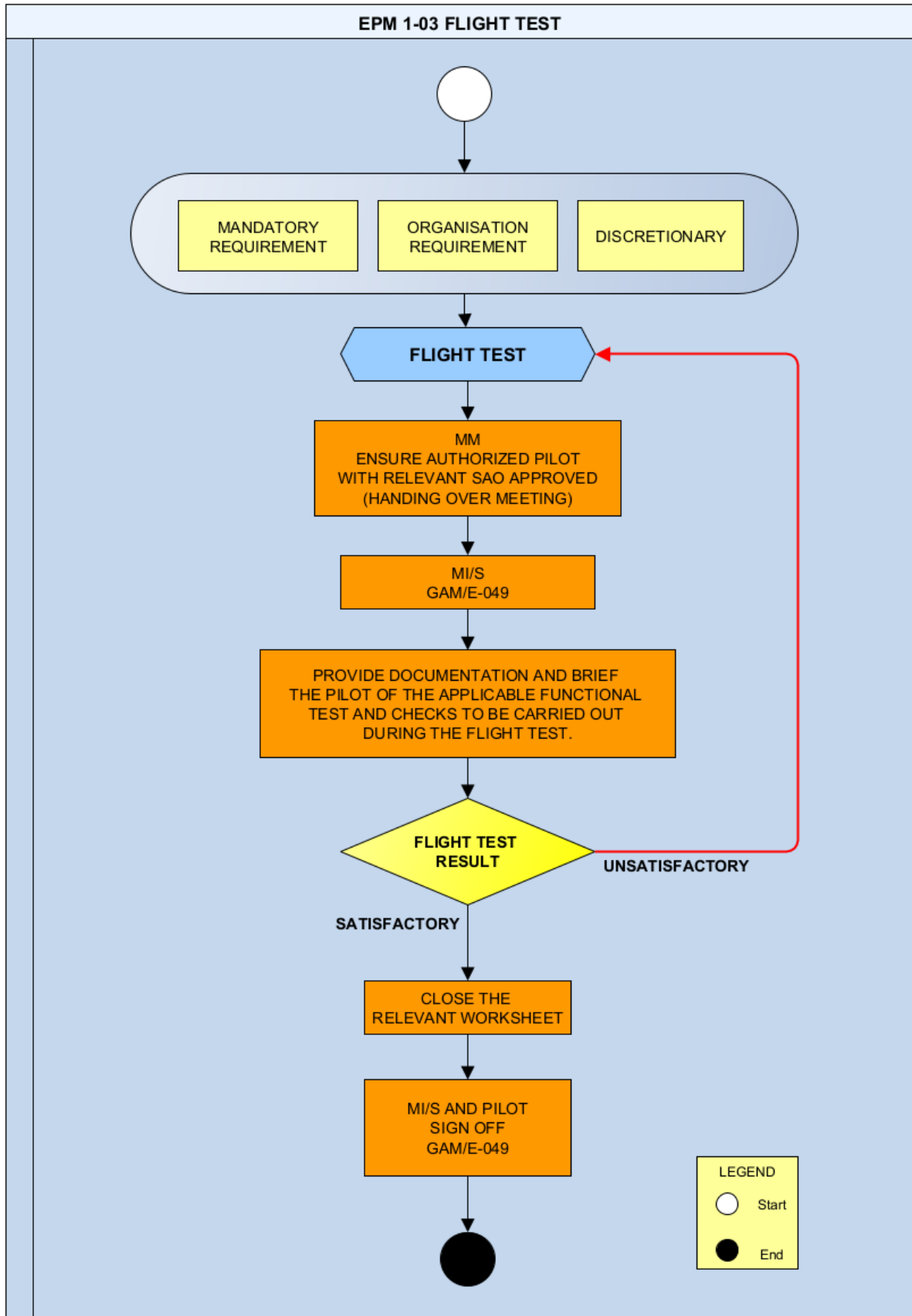
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2.0 Procedure

- 2.1 Maintenance Flight Tests required due to any of the 3 categories in para 1.2, MM or the personnel authorized (MI/S) as an observer will notify the appropriate SAO at the earliest opportunity.
- 2.2 The MM shall ensure that only appropriately authorized pilot to perform test flight, with the relevant SAO approved. Handing over meeting between both parties (GAM and SAO) to be held prior to initial Flight Test to discuss the following:
- a) Scope of work or task to be performed.
 - b) Pilot authorization and qualification.
- Minutes of meeting/discussion note is essence to the agreement between both parties in ensuring qualified pilot is task for the required Flight Test.
- 2.3 The MI/S must ensure the aircraft is correctly prepared for the required flight test. All documentation and maintenance requirement i.e pre-flight check, worksheet for the performed maintenance must be completed and signed prior to releasing the aircraft for the procedure.
- 2.4 Worksheet for a job requiring the flight test will be endorsed "Flight Test Required" and will be left opened.
- 2.5 **GAM/E-049 (Ground Run / Test Flight Report Form)** to be filled by MI/S stating the task been performed that requires the flight test and description of test require to be performed by the pilot during the procedure.
- 2.6 The authorized personnel will provide all documentation and brief the pilot of the applicable functional test and checks to be carried out during the flight test.
- 2.7 On completion of the flight test either it is satisfactory or unsatisfactory a further flight test needs to be carried out. The worksheets will be endorsed accordingly. The technical log page used for the test will be quoted on the worksheet.
- 2.8 Both MI/S and Pilot involve in the procedure have to sign off the **GAM/E-049 (Ground Run / Test Flight Report Form)** upon completion.

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AIRCRAFT TOWING & PARKING

1.0 Introduction

- 1.1. On a daily basis, there are requirements for ground movement of aircraft from the parking area to and from the dispersal area.
- 1.1 Personnel involved in towing duties must be trained, competent and familiar with particular aircraft requirements as specify in the Aircraft Maintenance Manual, ATA Chapter 9.
- 1.2 The towing team will normally consist of a minimum of three personnel although more assistance should be enlisted as observer within hangar area / confine area whenever possible.
- 1.3 The personnel responsible (MI/S) for the aircraft brake (brake operator) is trained and the authorised tow truck driver has overall responsibility for the aircraft and been briefed on the particular aircraft movement accordingly.
- 1.4 Tow truck driver (MI/S or ATP) shall be trained and authorised by Safety Department prior to performing the function.

2.0 Towing Preparation

- 2.1 Ensure that the towing vehicle is suitable and in serviceable condition for the intended procedure.
- 2.2 Prepare the aircraft in accordance with the Aircraft Maintenance Manual towing instructions, with particular attention to:
 - a. Brake system pressures (if applicable)
 - b. Steering system disconnected or unlocked, where applicable.
 - c. Aircraft ground locks fitted (if applicable).
 - d. Doors (including baggage hold) closed if necessary.
 - e. Undercarriage component i.e. wheel, brake, wheel hub, oleo, landing skid in good condition, where applicable.
- 2.3 Ensure all ground equipment is clear from the manoeuvring path.
- 2.4 All personnel involved must be properly briefed by the MI/S who led the procedure.
- 2.5 If the towing area under the control of airport authority, a clearance to proceed should be obtained prior to the movement.

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3.0 Manoeuvring – General

- 3.1 The operation of aircraft brake whilst in motion is prohibited except in an emergency.
- 3.2 Another personnel act as observer may sit next to the tow truck driver in the towing vehicle for a long distance movement (throughout the taxiway)
- 3.3 The ‘brake on’, ‘brake off’ hand signals are to be instigated by the tow truck driver when the aircraft is stationary and repeated by the brake operator when complied with.
- 3.4 Aircraft brakes must be on or wheel choke in place prior to tow bar ‘hook’ and ‘unhook’ for wheel type aircraft.
- 3.5 Requirements to operate brakes in emergencies are to be indicated by a shout of ‘brakes’ or using the hand signal.

CAUTION

ALL STAFF INVOLVED WITH A MANOEUVRING AIRCRAFT SHOULD BE AWARE OF, AND REMAIN CLEAR OF, AIRCRAFT WHEELS / UNDERCARRIAGES.

4.0 Manoeuvring – Airfield

- 4.1 The observer may board the towing vehicle when moving across the airfield but must monitor the aircraft for any obstruction. At such times, the observer should be positioned at the appropriate view of the towing vehicle at all times.
- 4.2 Aircraft anti-collision beacons should be utilised at all times and, additionally, aircraft navigation lights on all movements in hours of darkness or adverse weather conditions. A radio ‘watch’ is to be maintained listening out on the air traffic ground frequency.
- 4.3 During towing, airfield speed limit of the tow vehicle must be observed.
- 4.4 Immediately prior to moving off clearance to commence towing must be obtained from Air Traffic Controller via the radio using call sign, as appropriate. Only proceed when the clearance is given, then acknowledged, and completely understood. Stop at the point to which authorisation has been given unless further clearance is obtained.
- 4.5 If during an airfield towing operation an emergency should occur, such as vehicle breakdown or tow bar failure, call Air Traffic Controller immediately and inform them of the situation and current position on the airfield and, if necessary, ask for an apron control vehicle to come and assist.
- 4.6 Use only approved radiotelephony procedure for the communication.

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5.0 Manoeuvring – Hangar

- 5.1 Speed within the hangar is to be kept to a minimum.
- 5.2 Ground equipment which may cause obstruction are to be cleared from the intended manoeuvring area.
- 5.3 Observers are to remain in view of the tow truck driver while the aircraft is in motion and the movement has to be halted should the driver feel unassertive.
- 5.4 The MM or appointed MI/S should supervise all hangar manoeuvres.
- 5.5 Due consideration should be given to aircraft configuration with regard to hangar roof and door operating mechanisms such as:
 - a. Extreme tail plane / elevator position.
 - b. Helicopter Main Rotor and Tail Rotor Blades.
 - c. Collapsed / low undercarriage oleo.

6.0 Parking

- 6.1 Aircraft are to be parked with wheels chocked. Helicopters must not be parked with blades overlapping or overhanging stands or other obstructions.
- 6.2 Ensure any electrical services used when towing is switched off, i.e. Radio, Lights, Main batteries (a battery load test should be performed if the batteries have been used a long-time during tow).
- 6.3 Ensure all windows and baggage doors are closed.
- 6.4 Ensure flying control gust locks, where applicable, are engaged.
- 6.5 At times of high winds, it may be necessary to park aircraft nose into the prevailing wind.

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REPAIR PROCEDURE

1.0 Introduction

- 1.1 There are 2 definition of repair applicable to the aircraft structure:
- a. Standard Repair is when the repair procedure/method is available in the OEM publication i.e. Structure Repair Manual (SRM). This repair procedure is normally applicable only to secondary structure.
 - b. Non-standard Repair is when there is no repair procedure/method is readily available from the OEM. For this category, a repair scheme or procedure can be obtained either by requesting from the OEM or AEO.
- 1.2 This category also applicable to the component damage/defect where the procedure either available or not in the aircraft publication. Normally for component it is limited to minor repair i.e. surface corrosion, small dented.
- 1.3 Aircraft aeronautical product required a repair out of Scope and Level of the AMO, the repair works shall be sourced to the appropriate and approved vendor listed in the MSN.

2.0 Procedure

- 2.1 Damaged that has been identified on the aircraft or component either during schedule maintenance or operation shall be accessed by MI/S to determine the level of repair that required.
- 2.2 If the repair procedure/method is available from the OEM publication, either in the Maintenance Manual or Structure Repair Manual, the procedure will be performed to the applicable standard.
- 2.3 If the repair procedure is not available, the MI/S shall liaise with MM on behalf of the SMM to acquire the appropriate repair procedure/method from either the OEM or an Approved AEO.
- 2.4 Upon received of the procedure, SMM shall obtained approval from the DAR of the aircraft prior to performing the works. **GAM/E-047 Technical Information Review** will be used for the process of getting DAR's approval.
- 2.5 For both category, **GAM/E-001B Worksheet** shall be raised by Planner for the repair works to be carried out. The repair will be certified by the appropriate MI/S once completed.
- 2.6 Repair beyond the scope and level of AMO shall be performed by an approved Maintenance Support Network.

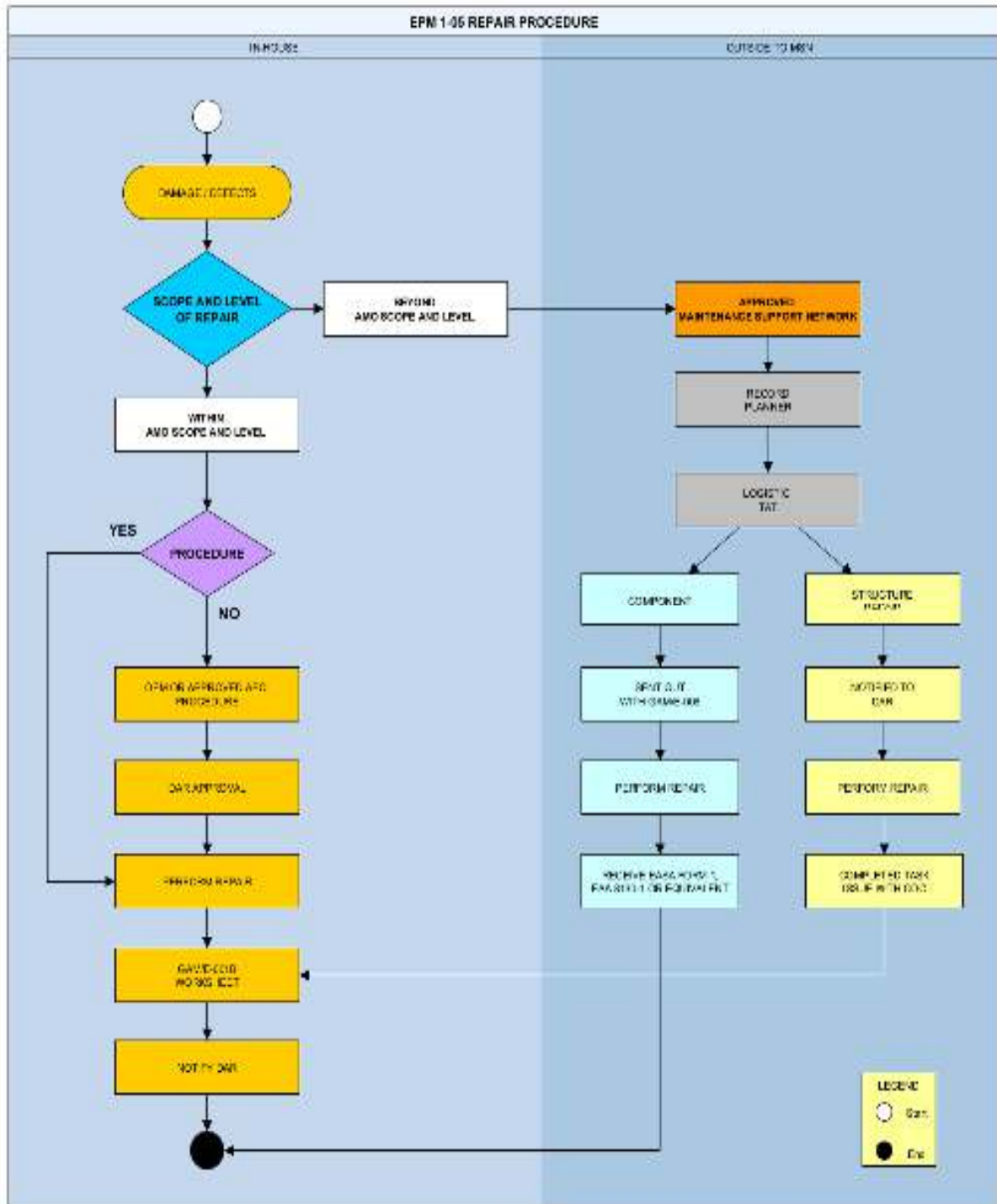
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- 2.7 MI/S shall request to SMM for a requirement of outside repair of component or any structure repair that beyond AMO capability.
- 2.8 Planner shall record all the component send out for repair and liaise with logistic department for the turn-around-time of the particular repair.
- 2.9 For component repair, the unit to send out shall be accompanied with **GAM/E-006 Unserviceable Tag** stating the nature of defect.
- 2.10 Once repair completed, the component shall be delivered with an appropriate release certificate (EASA Form 1, FAA 8130-3 or equivalent) and the comply the acceptance process by GAM warehouse.
- 2.11 For structure repair work performed by an approved Maintenance Support Network, the vendor shall issue a Certificate of Conformity upon completion of work and MI/S shall raise a **GAM/E-001B Worksheet** to buy-back the repair work under GAM quality system.
- 2.12 All aircraft structure repair work performed on the aircraft shall be notified to DAR as an aircraft configuration controller and it could potentially affect future changes, modification and any repairs in the adjacent area.

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AIRCRAFT WEIGHING

1.0 Introduction

- 1.1 Weight and balance have a direct effect on the stability and performance of the aircraft. If a plane is too heavy, it may never get off the ground. If it's out of balance, it may be uncontrollable when it does take flight. Maintaining proper weight and balance is an extremely important balancing act.
- 1.2 Initial and subsequent weighing requirements:
- a. On completion of manufacture
 - b. Intervals not exceeding five (5) years.
 - c. As required by the SAO.
 - d. After completion of aircraft painting or repainting.
 - e. As defined in the aircraft manufacturer's weight and balance manual.
 - f. Any activity likely to significantly alter the aircraft's weight and balance.

2.0 Weighing Procedures

- 2.1 Aircraft to be weighed in accordance with manufacturer's instructions.
- 2.2 An organisation approved to carry out aircraft weighing is stated in the Maintenance Support Network list.
- 2.3 Aircraft to be weighed shall be prepared in accordance with appropriate Weight & Balance requirement stated in the maintenance publication.
- 2.4 The weighing preparation shall be lead and authorised by MI/S together the authorised weighing engineer from the MSN performing the weighing procedure.
- 2.5 The complete weighing procedure performed in accordance with MSN approved procedure. Upon completion of the weighing, the weighing engineer shall issue a weighing and balance report.
- 2.6 The Weight and Balance report shall be forwarded to DAR for notification and record.

Caution:

Manufacturer's Flight Manuals and Weight and Balance Manuals are unique to the individual aircraft serial numbers. Under no circumstances should data from a manual serialised to an aircraft be used for calculations for another aircraft even if it is of the same type.

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CLEANLINESS OF AIRCRAFT (FOD CONTROL)

1.0 Introduction

- 1.1 The degree of cleanliness achieved, both internally and externally, during the maintenance of aircraft has an in-direct bearing on the airworthiness.
- 1.2 To ensure that an aircraft is fit for flight, especially where closed structures are concerned, stage inspections should ensure that aircraft are free from Foreign Object Damage (FOD).
- 1.3 Foreign object refers to any item, material or substance that either deliberately or inadvertently, is left in or gains access to any part or aircraft or aeronautical product.
- 1.4 The presence of Foreign Objects can cause damage to, or present a hazard to aircraft, aeronautical product and personnel safety, for example:
 - a. Dirt or grit in moving parts can cause excessive wear and other damage, reduction in working clearances, seizure or scoring of working surfaces, and deterioration of glands and seals.
 - b. Loose articles such as nuts, bolts, rivets, hand tools, etc., can cause jamming of controls, etc.
 - c. Damage to electrical installations and cooling air filters.
 - d. Chafing of pipes caused through restriction in pipe clearances.
 - e. Extraneous fluids may damage protective coatings and promote corrosion.

2.0 Precautions

- 2.1 The safety and prevention of an aircraft from FOD will be aided by the cleanliness of the maintenance facility.
- 2.2 Although the FOD control is lead by the MI/S performing the works, it is the responsible of all maintenance personnel to ensure the workplace and aircraft are FOD free at all times.

3.0 Working Practices

- 3.1 To prevent small tools, torches, pencils/pens, badges, etc., from falling into the aircraft structure, engineering personnel should ensure that articles are stowed in places, such as closed pockets, which will prevent them being lost.
- 3.2 It should also be ensured that suitable footwear is worn, or mats used, to ensure that aircraft surfaces are not scratched or damaged.
- 3.3 It should also be ensured that safety goggles, caps, etc. must be worn properly fitted so that they are not likely to fall and drawn into the engines.

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- 3.4 It should be ensured that all equipment, spares, or tools are accounted for when servicing or work has been completed to reduce the possibility of such items being left in the structure.
- 3.5 Aircraft components supplied with special transport cases or packaging should not be unpacked until ready for use. Blanking plates should only be removed during installation.
- 3.6 All tins and containers containing substances for use in aircraft maintenance, such as greases and jointing compound, should be kept closed when not in use, and any tins and containers that have been open for an unknown length of time, should be discarded.
- 3.7 Parts that are not required for immediate installation should be kept in stores.
- 3.8 Whenever it is necessary to open or dismantle a component (to the limits of GAM approval/capability listing), the work should be carried out in controlled conditions in the appropriate place, where dust grit, etc., will not be introduced into the components.

4.0 Interior Cleanliness

- 4.1 At intervals prescribed in the Aircraft Maintenance Manual, floor panels and panels associated with areas of 'closed structure' are opened for inspection.
- 4.2 Corrosion or residue that results from spillage in the cabin, galleys or toilets and moisture from condensation should be removed. Soaked or damaged insulation bags should be replaced.
- 4.3 The area should be cleaned, and any corrosion prevention treatment restored where necessary. When a structure is to be closed, either permanently or by a removable panel, inspection should verify that the compartment is entirely free of FOD.
- 4.4 Wherever possible, vacuum cleaners should be used to remove debris. High pressure air jets should not be used where debris can be blown over a wider area or driven into lap joints, bearings, electrical components, etc.
- 4.5 The final inspection should be made when there is no likelihood of the compartment being reopened, and when it is certain that no further operations are necessary which might introduce extraneous matter into the compartment.
- 4.6 Compartments reopened for adjustments, etc., should be given further careful examination after the work has been completed.
- 4.7 On completion of the work, the Approval Holder (MI/S) should satisfy that the structure or compartment is perfectly clean and free of FOD.

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5.0 Cleanliness of Installations and Systems

- 5.1 Compartments into which engines, Auxiliary Power Unit (if fitted), undercarriages, etc., are installed should be inspected for cleanliness prior to the installation. The compartment should also be checked for freedom from loose articles and other matter.
- 5.2 On removal of a component from an aircraft, all electrical plugs, ducts, pipes, hoses, etc., should be suitably blanked to prevent ingress of FOD.
- 5.3 Disconnection of any system will require adequate blanking to prevent ingress of extraneous material. Any test equipment, ground equipment or any other equipment such as servicing units should be kept clean and all covers, and blanks should be fitted when not in use.

6.0 Potential F.O.D

- 6.1 Potential FOD refer to any item or workplace condition that are not FOD but can become FOD if not identify or control properly (i.e. loose screw on a working trolley).
- 6.2 GAM practice “Half an Hours Before and an Hour Later” concept in identification and controlling of potential FOD.
- 6.3 **‘Half an Hour Before’** means that all maintenance crew before starting any work, there shall be a FOD walk around check on all the working places and **‘An Hour Later’** means that there shall be another FOD walk around check again before leaving the workplace.
- 6.4 Before and after each engine ground run, the ground run crew shall ensure that FOD inspection has been performed in the ground run area at least one hundred (100) feet radius.
- 6.5 Before and after aircraft take-off and landing, the marshaller shall ensure that FOD inspection has been performed in the area at least one hundred (100) feet radius.
- 6.6 This is to prevent any FOD around us and it is everybody responsible to ensure of “NIL FOD AROUND US” at all times.

7.0 Reporting of Potential FOD or FOD Findings

- 7.1 If Potential FOD or FOD has been found in the aircraft or maintenance area, the person shall raise a Safer Card in GAMS.
- 7.2 The report will be reviewed by Safety Department and a recommendation/preventive action will be discussed with SMM.
- 7.3 Safety department will conduct a Safety Review meeting regularly to address and corrective action to all the findings.

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8.0 Loose Article Check

- 8.1 To establish procedures and designated responsibility to preclude loose article and foreign object damage (FOD) to aircraft and engines after carried out maintenance.
- 8.2 Aircraft maintenance area will be inspected for loose article by MIS/ATP after maintenance task has been completed.
- 8.3 Tools removed from aircraft and work areas.
- 8.4 Tools checked and accounted for by ensuring all tools used been returned and recorded in Tool book in/out.
- 8.5 Foreign objects or loose items (eg. lock-wire bits, used rags) and trash removed and properly disposed into appropriate bins.
- 8.6 To ensure all bins are properly stored.
- 8.7 Ground equipment used are removed and properly stored.
- 8.8 Check for any loose items at engines air intake and aircraft compartments area.

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CLEANLINESS OF MAINTENANCE FACILITIES

1.0 Practices

- 1.1 It is the responsibility of the management to promulgate and foster awareness towards cleanliness and best practices on the part of all staff and to ensure discipline in housekeeping and cleanliness is enforced.
- 1.2 It is the responsibility of all individual staff to observe the requirements for cleanliness in their respective areas of work at all times.
- 1.3 At Base, the engineering team are responsible for cleanliness of the hangar post maintenance. This includes, but is not limited to:
- a. Hangar floor - swept clean and dry.
 - b. Maintenance stands and steps - cleaned.
 - c. Oil cupboards and equipment cupboards - cleaned and tidied.
 - d. Hangar - general tidy up.
 - e. All publications returned to correct locations.
 - f. Waste bins - emptied
- 1.4 All waste fluids are disposed of by the engineering staff concerned with the maintenance activity, by depositing the contents into drums positioned in a waste fluid storage area.
- 1.5 Tech Records, Library, Toilets, Crew rooms, pantry - cleaned.
- 1.6 Tool Stores – an inventory should be made of all tools, spares or equipment taken to an aircraft for servicing purpose, and check when the work has been completed. This action will reduce the possibility of such items being left in the structure.
- 1.7 The store area must be kept tidy with shelving used to store parts and equipment and not on floors.

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ROBBING PROCEDURE

1.0 Introduction

- 1.1 The term “Robbing or Cannibalization” describes the authorised removal of an urgently required component from either another aircraft currently not in service or from an assembly not fitted to the aircraft such as an engine, etc.
- 1.2 Cannibalization will occur when there are no spares available in the store and operational requirement to fly the aircraft. The condition may occur on the following situation:
- a. In-service parts/components which could not be made serviceable.
 - b. Part/component which is critical for flight operations and that has become defective during ramp operation which is confirmed as nil stock in the inventory.
 - c. Customer requirement to support other operational aircraft.
- 1.3 This procedure is only allowed when all resources / factors and safety elements have been considered.
- 1.4 An approval must be obtained from the respective SAO (DAR) prior to initiating the robbing process. SMM or it delegated personnel shall liaise with the SAO for the approval either verbally or in writing via email.
- 1.5 Once approved, MI/S shall perform the task in accordance with the respective maintenance publication.

2.0 Procedure

- 2.1 The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component or related system.
- 2.2 The component to be cannibalized shall be checked for satisfactory condition and compliance with OEM maintenance instructions.
- 2.3 MI/S shall liaise with Technical Record the hours remaining/status of the component.
- 2.4 The **GAM/E-017 Cannibalization Tag** must be used for this procedure.
- 2.5 MI/S doing the removal shall certify by signing and stamp in the ‘Removed from Aircraft’ section of the Cannibalization Tag conforming the serviceability of the component / part removed.
- 2.6 The MI/S is then responsible to initiate a request to the logistic department via a Planner for a replacement component together with all the required consumable (if any).

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- 2.7 An entry must be made in the Aircraft Journey Log (AJL) of the donor aircraft by the MI/S making the removal of the component. The pink copy of the Cannibalization Tag shall be attached in the AJL. It must be clearly visible to notify the maintenance or flight crew of the removed component.

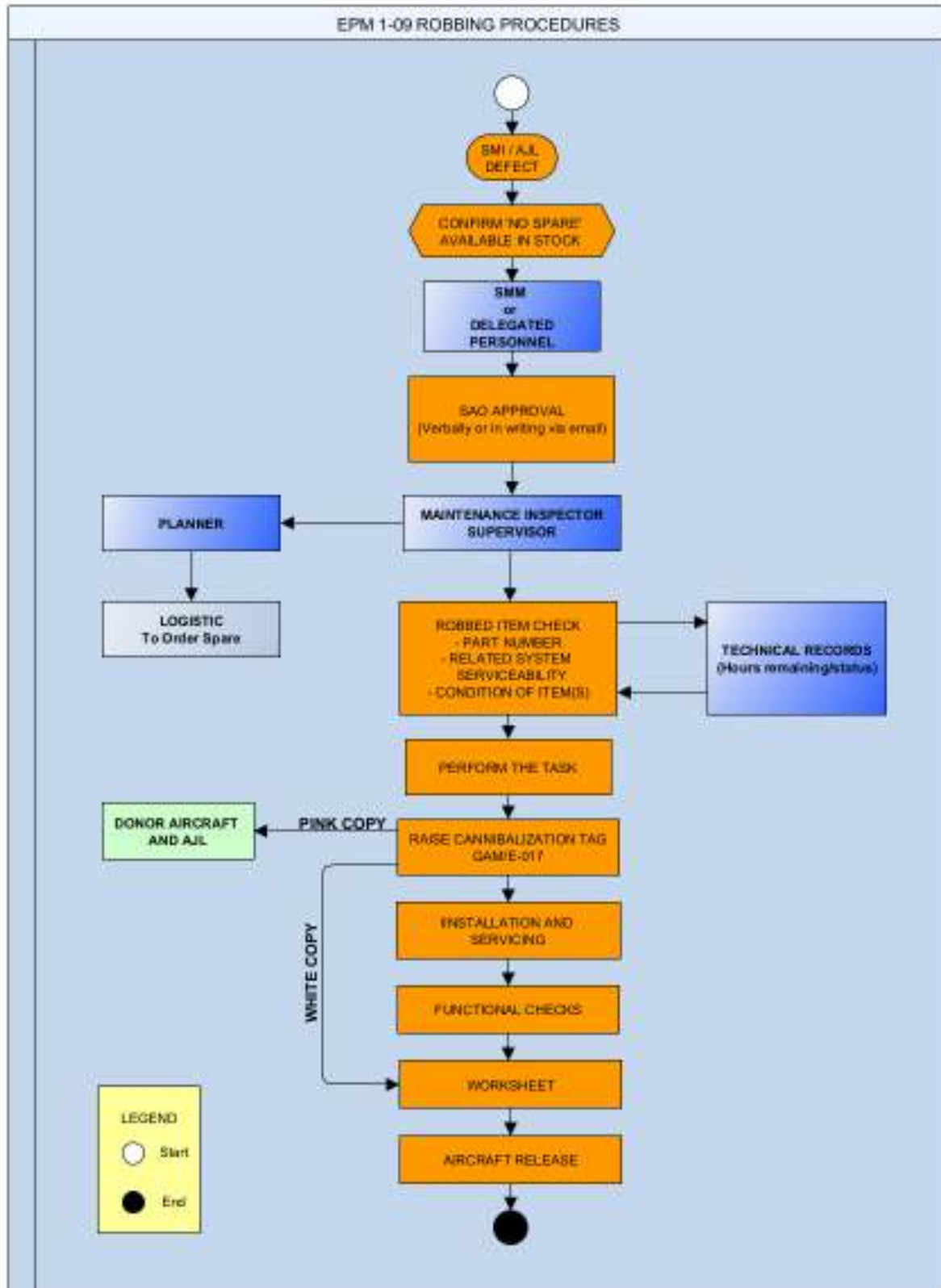
- 2.8 MI/S installing the component at the recipient aircraft should verify the condition and serviceability of the cannibalized component. The MI/S shall certify the 'Installed to Aircraft' section on the White copy of the Cannibalization Tag once installation is completed.

- 2.9 A functional check shall be carried out whenever applicable to confirm the serviceability of the installed component.

- 2.10 Once ordered component / part arrived, a standard replacement procedure applies for the installation work. The pink copy of the Cannibalization Tag attached to the donor's AJL as per para 2.6, shall be removed and attach to the **GAM/E-001B Worksheet** raise for the installation work. An entry made for the removal in the AJL shall be closed referring to the installation worksheet.

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REPETITIVE DEFECT

1.0 Introduction

- 1.1 Defects which reoccur, following rectification, three times or more in a month period are classified as repetitive.
- 1.2 Repetitive defects are monitored as part of the reliability program.

2.0 Action

- 2.1 The GAM Technical Service Department is responsible to monitor a repetitive defect for all aircraft fleet under GAM maintenance.
- 2.2 The data will be collected from the **GAM/E-001B Worksheet** and Aircraft Journey Log entries for the respective aircraft.
- 2.3 Technical Service engineer will present the analysis report every 3 months in the Maintenance Review Board meeting for the necessary preventive action by the management.
- 2.4 The report may be forwarded to the respective DAR for the reliability program or for a discussion of solution if a repetitive defect has been identified.

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DEFECT DEFERMENT – ADDs

1.0 Introduction

- 1.1 Although an aircraft should at all times be completely serviceable, many systems and structures are duplicated, or have built redundant.
- 1.2 The OEM of the aircraft recognised this and made provision for an aircraft to fly for limited period with system(s) inoperative, under strictly defined conditions.
- 1.3 This provision for releasing aircraft with a certain defect that not effecting the airworthiness of the aircraft and will be rectified in the future within the permissible time frame is also known as Carry Forward Unserviceability (CFU) in accordance with TAMM Regulation 5.1.11.
- 1.4 List of applicable system can be deferred unserviceable by the OEM are in the form of Master Minimum Equipment List (MMEL)

2.0 Acceptable Deferred Defects (ADDs)

- 2.1 Acceptable Deferred Defects are defined as those defects reported in operational service which are deferred for later rectification and will fall into one of the following three categories:
 - a. Performance.
Defects which may affect or limit the capability, performance or airworthiness of the aircraft:
 - i. Items described as allowable in the OEM's MMEL for that type of aircraft.
 - ii. Items described in the configuration deviation list of the approved flight manual for a particular aircraft.
 - b. Non-Performance.
Defects which do not place restrictions on the operation of the aircraft and do not affect the airworthiness of the aircraft.
 - i. Items provided for passenger convenience or entertainment which, when inoperative, obviously does not affect airworthiness.
 - ii. Items of a purely cosmetic nature which may have effect on the appearance of the aircraft.
 - iii. Work carried out, such as component transposition, as part of a defect investigation, where no defect can be reproduced.

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c. Special Inspections.

- i. Defects found to be within the permissible limit in the Maintenance Manual which do not place any restriction on the operation of the aircraft but require frequent repeat inspections to ensure that the defect has not changed or progressed in any way.

NOTE:

ADDs will be carefully monitored and rectification action is to be carried out at the earliest opportunity. For state registered aircraft, items listed in the MMEL are considered as a pre-approved ADD. Item not listed in the MMEL shall be approved only by SMM for CFU after DAR approval and OEM advice is obtained.

3.0 Procedures

3.1 Persons authorized to perform defect deferment.

- a. Senior Maintenance Manager (SMM).
- b. M/IS authorized by SMM.

3.2 Raising an ADD.

- a. Where equipment or a system on an aircraft is unserviceable but unavailable of replacement part/component, consideration will be given to defer the item as an ADD if the criteria is met.
- b. The following items must be reviewed to establish if the defect is acceptable for deferment:
 - i. Does the relevant MMEL (if applicable) allow flight with this deficiency and, if so, what operating limitations does it impose?
 - ii. Is the item provided for passenger convenience or entertainment, having no airworthiness implications?
 - iii. Is the item listed in approved flight manual configuration list supplement and, if so, what operational limitations does it impose?
 - iv. Are there any other deferred defects already on the aircraft that might be affected by, or might affect this defect deferment?
- c. If the item does not fall into any of the above categories and doubt exists that it might be acceptable as a deferred defect, SMM will refer to DAR and OEM when doubt exists on the feasibility of an ADD.

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- d. Having decided that the defect is acceptable for deferment and will be raised as an ADD, an entry will be made in the Aircraft Journey Log (AJL). Where the defect was raised as part of a maintenance input, and is recorded on maintenance worksheet, details of the defect must be transferred to the defect column of the AJL.
- e. Maintenance Manager (MM) should make an ADD request by completing **GAM/E-074 Aircraft Deferred Defect Form**, must contain the following information, as applicable: -
 - i. The ADD number.
 - ii. The reason for deferring the defect.
 - iii. Details of any spares required, including part numbers.
 - iv. The limitation (flight hours, landings or date) that has been given to the ADD. This should reflect the nature and implications of the defect.
 - v. Authorization numbers from DAR need to be print when deferment item not listed in the MMEL.
 - vi. The details of any flight limitation imposed by the defect, i.e. the MMEL shall identify flight restrictions.
- f. After completion and approved by SMM, the form should submit to the Commanding Officer (CO) and Design Acceptance Representative (DAR) of organisation for endorsement and acknowledgement purposes. The document should be kept according to the existing document storage procedure and entry for transferring the defect to the **GAM/E-048 Aircraft Deferred Defects Record**.
- g. The authorized person releasing the aircraft to service (if other than the one certifies the ADD) should be aware of the deferment and the responsibility of releasing the aircraft under the condition.
- h. Where the ADD places any limitation on the operation of the aircraft, Operations must be notified immediately.
- i. MI/S deferring the defect shall liaise with planner for the procurement of the required part/component.
- i. Rectification should be attempted each time the aircraft is available, providing spares and manpower are available.

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3.3 Closing an ADD.

- a. On rectification of the defect, an entry will be made in the current AJL defects column identifying the defect and the ADD number.
- b. Full details of the rectification action will be entered in the rectification column of the AJL along with a statement that the ADD has been cleared.
- c. The relevant entry on the Aircraft Defer Defects Record will be closed by recording the Technical Log number, the date, and the signature and authority of the person closing the ADD.

4.0 Deferred Defect Control

- 4.1 The SMM are responsible for the control of ADDs and ensuring rectification at the earliest opportunity.
- 4.2 When parts/materials which have been requested for an ADD become available, Storeman will liaise with planner to plan for aircraft downtime and the defect rectification.

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REPORTING PROCEDURE

1.0 Introduction

- 1.1 The reporting is required if there are unserviceable and unairworthy conditions, incidents or matters involving people, aircraft, facilities, assets, technical matters and other related matters.
- 1.2 The reporting conditions are divided into 3 categories:
 - a. Unserviceable conditions
 - b. Unairworthy conditions
 - c. Maintenance incidents.
- 1.3 The purpose of the reporting is to convey technical information in a clear and easily accessible format.

2.0 Reporting of Unserviceable Condition

- 2.1 The unserviceable condition defines as loss in performance compared to the stated limits in approved design of an aircraft or aeronautical product which may include but not limited to damage or cracking due to normal wear.
- 2.2 MI/S attending the unserviceable condition shall be able to determine the either it was normal wear and tear or otherwise.
- 2.3 Example of abnormally unserviceable component as follow:
 - a. There was sign of physical damaged to the component.
 - b. Excessive leaks
 - c. Uncommon damaged such i.e. crack, corrosion and scratch.
- 2.4 SMM shall inform DAR of any unserviceable condition which in result of other than fair wear via email as soon as practical.

3.0 Reporting of Un-airworthy Condition

- 3.1 The un-airworthy condition defines as unserviceable condition may adversely affect airworthiness of the aircraft and may result in catastrophe if not been address and rectified immediately.
- 3.2 Un-airworthy condition shall be reported using form **GAM/E-046 Un-airworthy / Maintenance Incident Report**.
- 3.3 The report may be initiated by Pilot if the unairworthy condition experienced in service or by maintenance personnel (MI/S) if found during servicing of the aircraft.
- 3.4 The SMM shall report to DAR within twenty-four (24) hours either in writing or via email together with form **GAM/E-046 Un-airworthy / Maintenance Incident Report**.

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3.5 Where GAM is unable to meet the specified time limits, or where investigation is beyond GAM capability, GAM should seek advice from the DAR.

4.0 Reporting of Maintenance Incident

4.1 The maintenance incident condition defines as an incorrect or inappropriate maintenance activity that adversely impact technical airworthiness.

4.2 MI/S shall use form **GAM/E-046 Un-airworthy / Maintenance Incident Report** to report the incident and submitted to SMM for further investigation.

4.3 The SMM shall report to DAR as soon as practical either in writing or via email together with the Un-airworthy / Maintenance Incident Report.

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AIRCRAFT MARSHALLING

1.0 Introduction.

- 1.1 Marshalling is visual signal between ground personnel and pilots on the airport, dispersal area, helipad or any area that is safe for aircraft operation.
- 1.2 To provide guidance for ensure that ground personnel and pilots to conform the signals for ground marshalling or aircraft.

2.0 Procedure and Preparation.

- 2.1 This procedure is applicable to all ground personnel are involved in the ground marshalling of aircraft.
- 2.2 Only competent personnel (ATP / MI/S) who have authorised by SMM shall perform duties as a marshaller.
- 2.3 The marshaller shall be positioned, where the marshaller can best be seen by the pilot and facing the aircraft position.
- 2.4 The standard attire of a marshaller is a reflecting safety vest, ear defender, illuminated marshalling beacons or bats / gloves and it is recommended to use an eye protection.
- 2.5 Prior to using the ground marshalling signals, the marshaller shall ascertain that the area within which an aircraft is to be guided is clear of objects or obstacle which the aircraft might otherwise strike.
- 2.6 The marshaller should always be alert and focused throughout the execution of marshalling.
- 2.7 In the event of an incident or accident the marshaller is not allowed to leave the guided aircraft and must attract the attention of other personnel in the surrounding area.

3.0 Signals from the pilot to a Marshaller.

- 3.1 The pilots shall use the following signals when communicating with a marshaller:

a. Brakes Engaged.

Raise arm and hand, with fingers extended, horizontally in front of face, then clench fist.



b. Brake Release.

Raise arm, with fist clenched, horizontally in front of face, then extend fingers.



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c. Insert Chocks.

Arms extended, palms outwards, move hands inwards to cross in front of face.



d. Remove Chocks.

Hands crossed in front of face, palms outwards to cross in front of face.



e. Ready to Start Engine(s).

Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.



4.0 Signals from the Marshalls to a Pilot.

a. Emergency Engine Shut Down.

Extend arm with wand forward of body at shoulder level, **move hand and wand to top of left shoulder** and **draw wand to top of right shoulder** in a “slicing motion across throat”.



b. Stop/Emergency Stop.

Fully extend arms and wands to cross above the head.



c. This gate (Identify Gate).

Raise fully extended arms straight above head with wands pointing up, move hands fore and aft to keep from blending into background.



d. Continue to Taxi Straight Ahead.

Bend extended arms at elbows and move wands **up and down from waist to head**.



e. Slow Down.

Move extended arms downwards in a “patting gesture”, moving wands **up and down from waist to knees**.



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f. Turn Right (From the Pilots Point of View).

With left arm and wand extended at a 90° angle to the body, right hand makes the come ahead signal. The rate of signal motion indicates to the pilot the rate of aircraft movement desired.



g. Turn Left (From the Pilots Point of View).

With right arm and wand extended at a 90° angle to the body, left hand makes the come ahead signal. The rate of signal motion indicates to the pilot the rate of aircraft movement desired.



h. Proceed to next signalman or as directed by tower/ground control.

Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman or taxi area.



i. Hold Position/Stand-by.

Fully extend arms and wands downwards at a 45° angle to the sides. Hold the position until the aircraft is clear for the next manoeuvre.



j. Set Brakes.

Raise hand just above shoulder height with open palm. Ensuring eye contact with the flight crew, close hand into a fist. DO NOT move until receipt of thumbs up acknowledgment from the flight crew.



k. Release Brakes.

Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with the flight crew, open palm. DO NOT move until receipt of thumbs up acknowledgment from the flight crew.



l. Chocks Inserted.

With arms and wands fully extended above head, move wands inward in a "jabbing" motion until the wands touch.



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m. Chocks Removed.

With arms and wands fully extended above head, move wands outward in a “jabbing” motion. DO NOT remove chocks until authorised by the flight crew.



n. Connect Towbar.

Bring arms above the head and grasp forearm with opposite hand.



o. Start Engines.

Raise right arm to head level with wand pointing up and start a circular motion with hand, at the same time with the left arm raised above head level point to aircraft.



p. Connect/Disconnect Ground Power.

i. To connect ground power:

Hold arms fully extended above head, open left hand horizontally and move finger tips of right hand into and touch the open palm of left hand (forming a “T”). At night, illuminated wands can also be used to form the “T” above the head.



ii. To disconnect power:

Hold arms fully extended above head with finger tips of right hand touching the open horizontal palm of the left hand (forming a “T”), then move right hand away from the left. DO NOT disconnect power until authorised by the flight crew. At night, illuminated wands can also be used to open the “T” above the head.



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q. Interphones.

Extend both arms at 90° from body and move hands to cup both ears.



r. Technical/Service Hand Signals–Flight Crew to Ground Staff.

i. Brakes Engaged:

Raised arm and hand, with fingers extended, horizontally in front of face. Hand is then closed to a fist.



ii. Brakes Released:

Raised arm, with fist clenched, horizontally in front of face. Hand is then opened to an open palm.



s. Release Aircraft for Taxi - Dispatch Aircraft.

Perform a standard salute with right hand and/or wand to dispatch the aircraft. Maintain eye contact with flight crew until aircraft has begun to taxi.



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ALTERNATIVE FACILITIES

1.0 Introduction.

- 1.1 GAM has an alternative facility as part of AMO requirement to meet the scope and level of Maintenance, Materials and Logistics Management Services as stipulated in the respective maintenance contract of State Registered Aircraft.
- 1.2 This procedure only involved on maintenance at the alternative facility belonging to Royal Malaysian Navy (RMN) for AS555SN and Super Lynx MK 100 aircraft.
- 1.3 For the aircraft of others organisation, GAM Facilities are assigned as alternative facilities. Implementation of any activity should be according to existing company procedures.
- 1.4 The purpose of this facilities is to provide the following services:
 - a. Responsible for ensuring the smooth implementation and management of Integrated Support and Services of aircraft and its components.
 - b. Deployment technical team to provide immediate technical services if required.
 - c. Perform aircraft monitoring function to monitor aircraft status and maintenance planning.
 - d. Inventory management.
 - e. Perform aircraft maintenance and repairs.
 - f. Manage the preservation, packaging, storage and transportation of components.

2.0 Procedure.

- 2.1 Initial Preparation (If required support team from GAM Subang).
 - a. When receiving a request over and above services from SAO to perform maintenance at Alternative Facilities. SMM / Appointed In-Charge will coordinate the preparations:
 - i. Execution date. - Agreed by SAO and GAM.
 - ii. Personnel. - According to requirement and scope of work.
 - iii. Tools and Equipment. - According to scope of work.
 - iv. Parts and components. - According to scope of work.
 - v. Accommodation. - Based on GAM Management.
 - vi. Transportation. - Company/private vehicles.
 - vii. Security Clearance - Based on SAO instructions.
 - viii. Others (If any).

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2.2 Permission to enter SAO base.

- a. MM / PIC shall arrange application for permission to enter the base, with SAO via letter or email. Application must be accompanied with detail of GAM personnel involved.
- b. Area to be entered is in accordance with the permission issued by the SAO.
- c. Personnel are only allowed to be in the area that has been authorized.
- d. The Aircraft maintenance conducting area is subject to the space allocated by the SAO.

2.3 Maintenance / Repair and Task Implementation.

- a. The implementation of maintenance/repair is subject and not limited to the procedures contained in this EPM. Instructions or procedures issued by the SAO to be followed.
- b. Working hours are subject to approval by the SAO. If additional working hours required, GAM should request to the SAO.
- c. Maintenance or task is considered complete when the aircraft has reached serviceable status or as agreed by both parties and been handed over to the SAO.

2.4 Tools, Equipment and Publication Loan.

- a. SAO will support GAM on special tools, equipment and publications on loan basis. MM / MI/S performing the maintenance shall liaise with SAO to obtain the tool, equipment or publication as required.
- b. The process of obtaining the tool, equipment and publication shall be conducted in accordance with the existing SAO procedure for contractor.
- c. MM / MI/S must record the details of the loan items in the contractor loan book in/out record.
- d. During the return process, MM / MI/S must ensure that the condition of the loan equipment in the good condition.
- e. GAM shall be responsible for the repair or replacement of equipment if damaged or lost during the loan period.
- f. In the event of lost, GAM will comply action with the procedures and instructions issued by the SAO.

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ACCEPTANCE OF AIRCRAFT COMPONENT AND MATERIAL

1.0 Introduction

- 1.1 When accepting aircraft component, parts and material for GAM, under the Warehouse and Logistic section, a full examination of the items shall be carried out by Approved Store Inspector, with particular attention to aircraft components for full compliance with the order made, and that the relevant documents are in accordance with the requirements of the regulation.
- 1.2 All incoming aircraft component, parts and material shall be properly handled and stored to prevent damage and deterioration.
- 1.3 The Authorized Release Certificate (ARC)/Airworthiness Approval Tag (AAT), Certificate of Conformity (CoC) or acceptable equivalent certificate must be accompanied for all parts, components and materials supplied to GAM.
- 1.4 All parts received must come from supplier listed in the Maintenance Support Network and being approved for the supply / repair / overhaul of the part concerned. The vendor list may identify the required release documentation for the particular parts. The documents accompanied each item must provide a full and accurate information relating to the origins / source and must reflect the requirements of the purchase order in all aspects.
- 1.5 Items that have been repaired, overhauled, modified or inspected must be accompanied by release documents that detail the life used and relevant maintenance history in the component log card or logbook.
- 1.6 Standard parts that are not the subject of specific product approvals are to be accompanied by a Certificate of Conformity pertaining to their standard of manufacture.
- 1.7 Should an item does not fully comply with the criteria as detailed above or if doubt exists, the particular part is then quarantined for further evaluation and investigation.
- 1.8 Aircraft components obtained from other operators or maintenance organizations may be accepted if they conform to the constraints detailed in Para 2.1(g).
- 1.9 All aircraft component and material received are subjected to inspection prior to acceptance into company inventory system. The inspection is done in the Receiving Area which must be clearly identified and physically segregated from the Bonded Store.

2.0 Procedure

- 2.1 Delivered items from a shipping agent or supplier will be placed in the Receiving Area for the Warehouse Personnel to inspect:
 - a. Confirm the packaging of the parts identifies the supplier / vendor and free from damage and alteration.

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- b. Warehouse Personnel shall register the incoming parts or tools using the **Goods in Note (GiN) Register List - GAM/E-004**. Same GiN reference number shall be assigned to all the shipment receive in that particular day.
- c. Verify that actual part and delivery receipt reflect same information as per Deliver Order and Purchase Order with regard to part number, serial number, quantities and historical information.
- d. Verify that the identification on the parts has not been tampered e.g. serial number stamped over, improper or missing decal / data plate, or serial numbers located not in standard area.
- e. Ensure that any shelf life has not expired.
- f. Conduct visual inspection of the part for any irregularities.
- g. Verify accompanying certification documents to ensure part is traceable to an approved source and reflect the maintenance status.
 - i. Authorized Release Certificate (ARC) / Airworthiness Approval Tag (AAT) / FAA 8130-3 / EASA Form 1 / Certificate of Conformity or equivalent certificate.
 - ii. Engine or component logbook or log card contains all the relevant details (certification, life, sub assembly, status of AD / SB / modification)

2.2 If component satisfy the acceptance requirement, Warehouse Personnel will fill-up and certify the **Acceptance Report Form - GAM/E-041**.The GiN reference number shall be the release number for the particular part.

2.3 If the component subjected to shelf-life expiry, the Aeronet System will alert the warehouse and logistic personnel by way of notification and email.

2.4 Component will be repackaged and transferred to Bonded Store together with the **Serviceable Label - GAM/E-005** printed from Aeronet System.

2.5 Serviceable Label shall include details extracted from the ARC/AAT or Certificate of Conformity including Time Since Overhaul (TSO), Time Since New (TSN) or Life Remaining.

2.6 The item then located in its designated location within the Bonded Store. All documentation will be kept in fireproof cabinet in the Store for the purpose of traceability.

2.7 The item will be assigned in a specific location in the Bonded Store and registered in the Excel Sheet in store PC for quantity monitoring.

3.0 Investigation and Segregation of Unacceptable Aeronautical Product

3.1 If a part / component is suspected to be unapproved part / component or discrepancy found in its documentation during acceptance inspection, the component must remain in Quarantine Area and appropriately tagged using **Quarantine Tag – GAM/E-007**.

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The Storeman will raise the **Component Discrepancy Report form – GAM/E-003A** for further action. A copy of Discrepancy Report shall be made available to Quality Manager.

- 3.2 Part will be registered in **Quarantine List – GAM/E-031** and to be kept in Quarantine Area until settlement of the non-compliance. Quarantine parts shall be released once all discrepancies have been rectified.
- 3.3 If parts / components are confirmed to be unapproved, it will be sent back to the supplier and request for warranty / refund will be initiated by the Warehouse personnel.
- 3.4 QM will be notified, for further action to be taken towards the supplier (suspend or terminate).

4.0 Unserviceable Aircraft Component and Material.

- 4.1 Unserviceable aircraft components and material are to be returned and placed in quarantine area in the store.

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TEST EQUIPMENT / TOOLS / GROUND SUPPORT EQUIPMENT CALIBRATION

1.0 Introduction

1.1 Every Test Equipment, Tools and Ground Support Equipment (GSE) that required periodic inspection or calibration controlled by the Tools Store and monitored by the Quality Manager. The requirement is essential to ensure serviceability, accuracy, traceability and accounted for during maintenance. Unless otherwise specified by the item's manufacturer, the interval for calibration and inspection are standardize at annually.

2.0 Procedure – New Items

2.1 New items of test equipment / tools / ground equipment are to be allocated the GAM inventory number (e.g. GAM/GSE/XXX – for GSE) upon receipt by the Tools store as per GAM acceptance procedure and recorded in the inventory register. The inventory number will be stencilled or engraved or label on the item / equipment.

2.2 For special or non-standard tools and equipment, the item will first be passed to the respective trade MI/S / MM for an inspection to confirm their identification, specification and serviceability before allocation of GAM inventory numbers.

2.3 Having established the item are correct, MI/S / MM will advise the calibration date for the item based on OEM calibration interval.

2.4 MI/S / MM will ensure that user manual and instructions are available if any and item will be placed in the proper area / storage readily available for use.

2.5 **GAM/E-034 GSE Inspection Sheet** will be used to monitor and record the required schedule maintenance of the GSE.

3.0 Inspection / Calibration Requirement

3.1 Inspection and calibration due are to be monitored using a Calibration Tools Master list, each item of Test Equipment / Tools / GSE will have their calibration sticker / label indicate the next inspection and calibration due date.

3.2 Test equipment / Tools / GSE calibration are reviewed regularly by the storeman for advance forecast.

3.3 Storeman will advise the Commercial Manager / SMM / MM of any due item, who will then arrange the despatch of items for inspection and calibration.

3.4 Items not held in stores (booked-out) must be recalled immediately.

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3.5 GSE shall be inspected regularly and record using form GAM/E-034 GSE Inspection Sheet. The inspection interval is 6 months as a standard but may varies subject to manufacturer recommendation.

4.0 External Calibration Agencies

4.1 Quality Department shall identify an approved calibration agency for the item as an approved vendor.

4.2 GAM shall provide all the necessary documents for shipping, including a repair / purchase order which will include a requirement to provide GAM with a strip report / repair details if necessary.

5.0 Receipt of Items from Inspection / Calibration

5.1 Items received from inspection / calibration should have their details verified from the calibration certificate, and label stated next inspection due date applicable to the particular item.

5.2 If is not supplied (due date label), the Storeman shall write the due date based on the calibration certificate on the item using a permanent ink on the GAM calibration sticker.

5.3 The relevant record card is the updated and the calibration certificates and reports shall be filed accordingly.

6.0 Responsibilities

6.1 The ultimate responsibility for ensuring that any Test Equipment / Tools / GSE to be use is 'in-date', lies on the end user (maintenance personnel).

7.0 Unscheduled Occurrences

7.1 In the event of the next test due date becoming illegible the Test Equipment / Tools / GSE is to be immediately quarantined in stores.

7.2 The Storeman shall establish the correct due date and re-marking with a new label prior to re-issue for use if the calibration still valid.

7.3 In the event of an accuracy or functionality is in doubt by the end user, the item will be sent for inspection or calibration using a normal procedure.

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TOOLS CONTROL

1.0 Issue

- 1.1 The control of Tools and Test equipment hold in the Tool Store is affected by means of a Tool Control Register system.
- 1.2 A complete list of tools available in every base are recorded in GAM/E016(R1) Tools Master list and keep in respective base and for MIAT base the Master list is control by Storekeeper.
- 1.3 Prior to 'booking out' any tool or equipment from the store, the maintenance personnel should ascertain that the item is serviceable and the test label 'in date', if applicable, before entering details on the **GAM/E-025 Tool Control Register** book.
- 1.4 All personnel are responsible for the security and condition of tools in their possession or care. Any broken, lost or misplaced of any tool or equipment shall be reported immediately by the user to the person in charge (MM / MI/S).
- 1.5 The person booking out an item shall sign in the appropriate 'Issue' column in the **GAM/E-025 Tool Control Register** book in the store.
- 1.6 The **GAM/E-025 Tool Control Register** book (In House) are categories as follow:
 - a. General / Calibrated / GSE Tool (For Applicable aircraft use).
 - b. Special Tool (For Applicable aircraft use).
- 1.7 A dedicated book **GAM/E-043 Out of Base Tool Control Record** to be used for loan of tools and GSE to other bases or out-of-base detachment.
- 1.8 Tools booked out should be returned to the Tool Store on the same day of loan unless if there is a requirement for use in longer period, storekeeper must be informed.
- 1.9 Storekeepers require to check on tools that were not returned on the same day, and record in the **GAM/E-056 Unreturned Tool Control**. Storekeeper must ensure reason of the unreturned tool is updated every day.
- 1.10 All personnel must take note and observed the safety precaution appropriately to the equipment in use.
- 1.11 Any tools/equipment found defective, or with discrepancy note must not be used, immediately withdraw from shelf and tag with **GAM/E-006 Unserviceable Tag** stating nature of defect. Such item must be reported to Engineering Controller for necessary action.
- 1.12 It is the responsibility of the MI/S on duty to ensure that an accurate record of all tools used during maintenance.
- 1.13 At the cessation of his period of duty he is to undertake a full tool or equipment check and any items that remain outstanding are to be reported to the Maintenance Manager, complete with details of the person who made the withdrawal from store.

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1.14 The MI/S should annotate all outstanding items on the Tool Control Register, giving full details/reasons for each item that has not been returned during his duty period.

1.15 The personnel authorized to perform the maintenance task are responsible for the security of the tools and are to ensure that all tools are accounted for on completion of maintenance and prior to launch of an aircraft.

2.0 Handling of Tools, Equipment and Alternate Tools

2.1 Tools and equipment must be used in accordance with the manufacturer's instruction and tolerance/standards practice or using good basic aircraft engineering principle as applicable to the tool in use.

3.0 Return to Store

3.1 The user must ensure that all tools / equipment is clean and serviceable prior to and upon completion of use.

3.2 Upon receive tools or equipment from maintenance personnel, storekeeper require to check on the serviceability, completeness of assembly and cleanliness of tools before accepting and put back to its respective location.

3.3 The user is responsible to return the tool / equipment back to store and certify the Tool Control Register book 'Return' column.

4.0 Discrepancies

4.1 Any discrepancies, missing or damaged tool / equipment is to have their locations identified by means of an Unserviceable Tag stating nature of defect whether the item is:

- a. Missing, not returned
- b. In need of replacement/repair due to wear and tear or
- c. Removed for calibration.

4.2 Any broken, lost or misplaced of any hand tool is to be immediately reported by the user to the MI/S on duty.

4.3 **GAM/E-027 Missing Tool Declaration** form shall be raised by the user within 1 hour after a missing tool been identified which to be forward to MM or SMM.

4.4 Tools missing suspected lost in aircraft.

- a. MI/S / MM shall consult SMM to temporary ground the aircraft, where the user and other maintenance personnel will search for the missing tool at the aircraft vicinity and to satisfy any doubt panels shall also be remove for access.
- b. Once SMM satisfied on the search of the missing tool and could not found it anyway in the aircraft, SMM will declare to stop searching and accept the missing of the tool. SMM shall authorise in releasing the aircraft for service.

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- 4.5 Tools missing other than in the aircraft.
- a. If the user could not find the missing tool, he will declare the tool missing to the SMM via MI/S / MM.
 - b. SMM shall advice the Logistic Officer the next action to be taken either to purchase a new tool or not in the Additional Remarks column of the Form.
- 4.6 Other procedure required to be followed:
- a. The Storekeeper shall endorse the tool record Register and Tools Master List as “lost” and an Unserviceable tag is placed at the tool location in the tool store.
 - b. If the item is subsequently found at later time after the new tool has been purchased, the tool needs to be return to the tool store and the storekeeper will re-activate the tool in the Tools Master List.
 - c. Before the tool can be used for maintenance, the storekeeper shall clean and determine the serviceability of the tool and placed the tool at the respective place in the tool store.
 - d. Storekeepers are responsible to monitor calibration and inspection of tools and equipment. Every tool and equipment that have due for calibration or inspection must be quarantined while waiting to send out or to re-inspect.

5.0 Maintenance Tools Control during period of operation.

- 5.1 All tools and equipment to be used during period of operation shall be booked out from the tool store according to para 1.3 and 1.6 EPM 2-03.
- 5.2 MI/S must show to aircraft captain to sight all tools prior commencement, and on completion of maintenance.
- 5.3 After completion of maintenance, tools and equipment shall be return to tool store according to para 3.0 EPM 2-03.

6.0 Tool or Special Equipment Loan or Rental.

- 6.1 When there is a requirement for Tool or Special Equipment loan or rental from other organisation (e.g.: Vendor, OEM or Government Agency), the user through a Planner shall make an application via email to the Toolstore.
- 6.2 The Storekeeper should ensure that the Tool or Special Equipment requested is not available in the GAM’s inventory.
- 6.3 The Storekeeper shall communicate with the relevant organization to inform the intention of Tool or Special Equipment loan or rental.
- 6.4 For loan or rental from Government Agency, GAM Representative shall issue requisition via letter or email. Evidence of approval/rejection of loan may be in the form of letter or email.

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- 6.5 For loan or rental from other non-Government Agency, GAM Logistic Officer shall issue Request for Quotation (RFQ) via letter or email.
- 6.6 Upon approval for the Tool or Special Equipment rental, the GAM Logistic Officer shall issue Purchase Order (PO) to the non-Government Agency.
- 6.7 Storekeeper shall arrange collection of the Tool or Special Equipment from Government Agency, or acceptance of Tool or Special Equipment from non-Government Agency.
- 6.8 During the acceptance process, the Storekeeper shall inspect the condition of Tool and Special Equipment and ensure that item is serviceable, calibrated and in good condition.
- 6.9 The Storekeeper shall record the details of the Tool or Special Equipment received in **GAM/E-065 – Tool Loan Register**, and keep relevant documents attached (Eg: Delivery Note, Delivery Order, Shipping Notice, Purchase Order, etc).
- 6.10 The Storekeeper shall ensure that the Tool or Special Equipment received placed in the designated rack/area in the Tool Store.
- 6.11 For any withdrawal of Tool or Special Equipment for the purpose of aircraft maintenance, the user may refer to the procedure stipulated in para 1 of this EPM.
- 6.12 Upon completion of the Tool or Special Equipment, the Storekeeper shall ensure that the Tool or Special Equipment is in good condition and clean. The GAM Representative shall arrange the return of Tool or Special Equipment to the owner.

7.0 Tool or Special Equipment Loan or Rental at Alternative Facilities.

- 7.1 When there is a requirement for Tool or Special Equipment to be loaned or rent at the Alternative Facility (specifically the operator of the aircraft facility) and to be used at the same facility, MI/S or ATP shall follow the procedure of the possessor.
- 7.2 Upon withdrawal from the possessor store, maintenance personnel shall inspect the condition of Tool and Special Equipment and ensure that the item is/are serviceable, calibrated and in good condition.
- 7.3 Maintenance personnel shall record the details of the Tool or Special Equipment received in **GAM/E-065 – Tool Loan Register**, and keep relevant documents attached (if any).
- 7.4 After completion of usage, maintenance personnel shall return the Tool or Special Equipment to the loaner store. Maintenance personnel must ensure that the Tool or Special Equipment is in good condition and clean. Procedure of return shall follow as per possessor's practice.

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FABRICATION OF TOOLS

1.0 Introduction

1.1 Where available, the manufactures' recommended alternative tools shall be obtained, issued to and used by maintenance personnel. However, if there are no alternative tools recommended or the recommended tools are unavailable for purchase or loaned, GAM may fulfil the same requirement by fabricating the tools.

2.0 Procedure

2.1 SMM is responsible to initiate the alternate tool process. The **GAM/E-062A Alternate Tooling Records Form** Part A which contained the description and related reference filled by SMM.

2.2 SMM must provide the sample of the tool, if applicable to Design Engineer to produce drawing or related document. This is basically for reverse engineering process. The sample may be provided by way of loan the tool from another operator.

2.3 Design Engineer will produce the Engineering Order or/and Engineering Drawing referring to sample provided.

2.4 SMM shall submit to DAR the related document as per:

- a) Master List.
- b) GAM/E-062A Rev.0 Alternate Tooling Record Form.
- c) Engineering Order or/and Engineering Drawing.

2.5 The Alternate Tool request acceptance as per Part A Para.3 GAM/E-062A Rev.0 is to be made by respective DAR.

2.6 Logistic and Procurement Section will associate with the concerned vendor for fabrication process.

2.7 The finish product will be received by Tool Store Supervisor (GAM/E-062A Part C)

2.8 Verification of the finish product must be performed by Design Engineer and SMM (GAM/E-062A Part D Para 1 and 2).

2.9 This verification by Design Engineer is in accordance with the Engineering Order or/and Engineering Drawing.

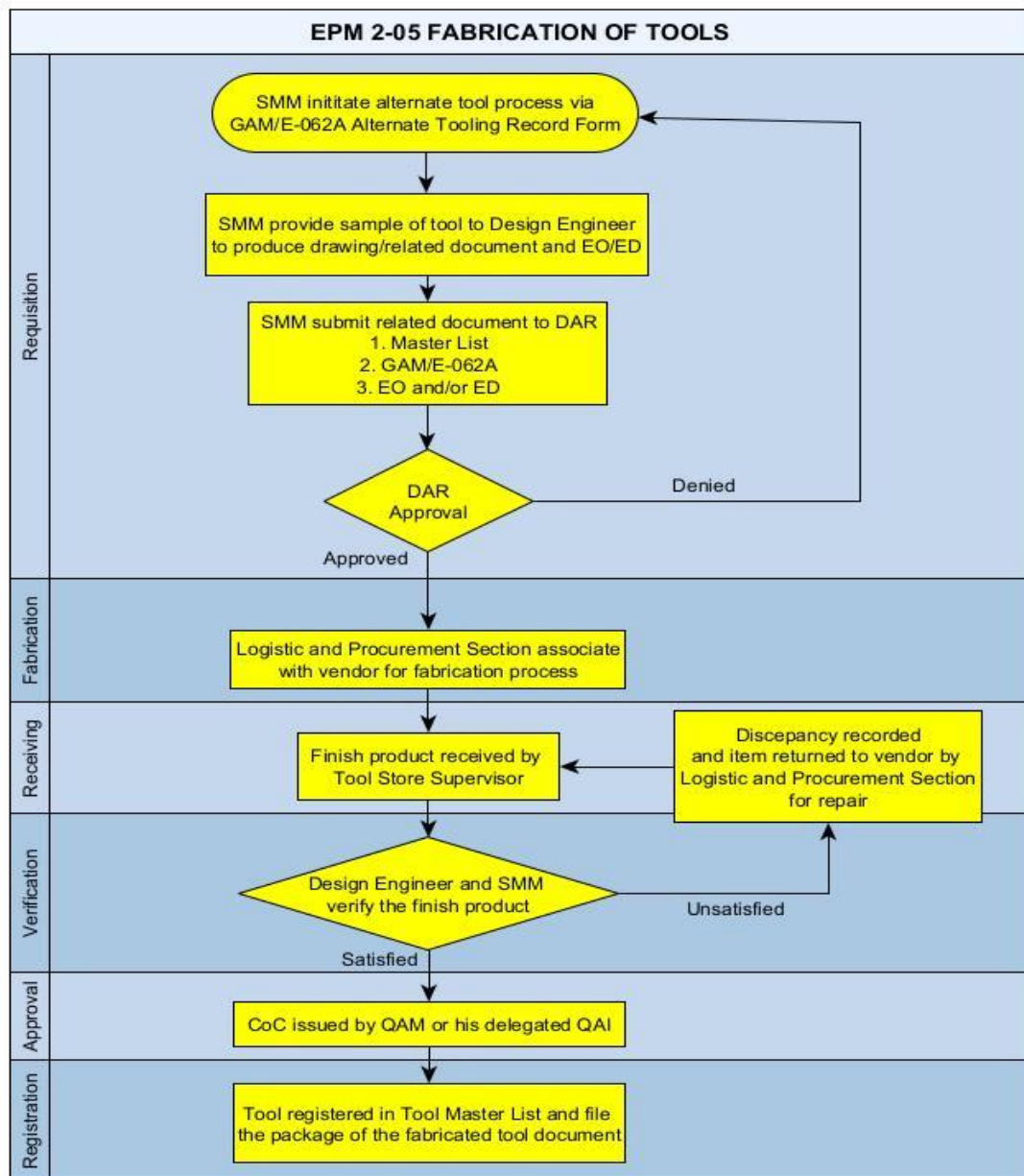
2.10 The verification by SMM is in accordance with the functionality aspect of the tool.

2.11 Any discrepancy found shall be recorded and item shall be returned to the shop or activity center for repair via Logistic and Procurement Department.

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- 2.12 Certificate of Conformity shall be issue by Quality Manager or delegated Quality Assurance Inspector.
- 2.13 The finish product and its related document shall be forwarded to DAR for approval, prior to usage if applicable.
- 2.14 Registration in Tool Master List, retention of the document and control of the fabricated tool will be carried out by Tool Store Supervisor as per EPM 2-02 Test Equipment/Tools/Ground Support Equipment Calibration.
- 2.15 The filing on alternate tool form and related document is kept by SMM of the organisation. The SMM is responsible on filing and updating the fabricated tool document.



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ISSUANCE OF COMPANY APPROVAL

1.0 Introduction

- 1.1 Company Approval to maintenance personnel is administered by Quality Department on behalf of SMM to suitable qualified and experienced engineering personnel enabling them to make certifications for work carried out, and to issue the Certificates of Release to Service (CRS) for aircraft and/or components.
- 1.2 Release to service (CRS) for work carried out to aircraft and components under the maintenance control of GAM shall only be made by:
- a. Personnel holding GAM's Company Approval,
 - b. Personnel employed by a company contracted to carry out maintenance activities on behalf of GAM and approved for such activities.
- 1.3 To be issued with Company Approval, the person shall comply the following:
- a. Must be at least twenty-one (21) years old.
 - b. Are fully conversant with Company Procedures
 - c. Are able to meet the requirement of basic training, aircraft maintenance experience and any other qualifications pertinent to the desired approval in accordance with the MMP requirement and EPM 3-12 (Company Approval System).

2.0 Procedure

2.1 Company Approval Request

- a. Should there is a requirement and vacancy for a certain position, a competent applicant shall submit the Application for Company Approval form (**GAM/Q-012**) to the SMM for evaluation and acceptance.
- b. The application is made by the engineering personnel by completing details in the form, giving full details of aircraft type and category of the approval requested.
- c. The completed form and the supporting document is forwarded to the Quality Department.

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2.2 Assessment Process.

- a. Once received, the application is reviewed to ensure details provided are correct and acceptable by SMM.
- b. If satisfied with the competency, experience and training of the applicant, an assessment will be conducted orally using Job Competence Assessment **(GAM/Q-015A)** and in writing using Written Assessment form **(GAM/Q-015B)** by SMM or Designated Assessor. Applicant should be passed both of assessment.
- c. Personal employment, experience and technical history:
 - i. Record of Engineering Personnel
Provides details of employment and training prior to employment by GAM and must be completed and on file in the Quality Department before approval may be issued.
 - ii. Recommendation
At initial approval issue recommendation is required to ensure the person is performing satisfactorily in their abilities and general performance. It establishes that the department concerned is satisfied with the individual.
 - iii. Procedures
Knowledge of procedures will be established to ensure the nominee is able to comply with GAM procedures and practices. A course is preferred but if it can be established during a Quality Assessment that the nominee has sufficient knowledge and experience of the subject, a course may be waived.
 - iv. Engineer's Licence (if applicable)
Where applicable it must be established that the engineer holds the appropriate licence without type rating for the approval requested, that the licence is current, and a copy is held on the Quality file. For initial approval issue, the licence currency records must be reviewed /amended to ensure the Quality Department control of renewals has the required details.
 - v. Technical Competency Assessment
Required to ensure the required knowledge, experience and confidence are satisfactory with the MMP requirement.
 - vi. Where no examination was completed due to the nature of the training, the assessment will ensure that the subject matter is dealt with to a sufficient depth to act in lieu of an examination.
 - vii. Where the application is only partially acceptable, the approval recommendation may be made subject to restrictions.
 - viii. The Quality Manager carrying out the review will then sign and date the form, below his comments and restrictions if applicable.

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- ix. The requirements and procedures for the issue of the Company Approval are the same for GAM's contracted staff.

2.3 Issuance of Company Approval

- a. Where the applicant found to be met the requirement and pass the technical assessment, a Company Approval Certificate (**GAM/Q-013B**) will be issued by SMM together with the Authorisation Letter for the period of validity stated on the Approval certificate.
- b. Company Approval Certificate details the Company approval number. It also gives the authorisation holder's personal details, approval number, specimen signatures and authorisation stamp.
- c. Full details of the Company Approval are given along with any limitations, expiry date or with special information.
- d. The Approval holder shall be issued with an Inspection Stamp, which will remain as the property of the Company. The stamp shall only be used by person to whom it is issued, and its loss shall be reported immediately to Quality Manager.
- e. The individual Company Approval Certificate must be available for inspection at all times and may be revoked or suspended at any time by written notification from the SMM.
- f. For initial issue of Company Approval, the approval number is selected from the Company Approval Certificate Register (**GAM/Q-027**); controlled by Quality Department, the approval may not be re-issued to a new holder unless it has been quarantined for a minimum of six (6) months since surrender or cancellation from its previous holder.
- g. Where a new approval number is issued, the approval number is recorded and controlled in the Company Approval Certificate Register by Quality Department.
- h. Issuance of company approval is only valid while holder under employment of GAM or GAM sub-contracting Company/Personnel.
- i. Quality Manager shall be responsible for maintaining record of all Company Approval issued, along with copies of relevant documents which formed the basis for issue Company Approval. These related records will include evidence of initial formal engineering training, duration of experience, previous License (with or without Type Rating) and Approval held, relevant type course attended and results of Company Procedure examination as applicable.

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2.4 Company Approval Acceptance

- a. Upon receive of the Company Approval Certificate the holder must sign, date and stamp as required to acknowledge acceptance of the certificate. The original certificate shall be kept by the personnel and second copy of certificate will be placed in the holder's personal file.

2.5 Approval Holder Responsibilities

- a. All certification relating to aircraft, related items and parts/components shall be carried out under the authority of Company Approval as applicable.
- b. All certification of airworthiness document including CRS in the worksheet, shall be made by Approval Holder under authority of Company Approval.
- c. Unauthorised alteration of Company Approval document will immediately invalidate the document and render holder liable for disciplinary action.
- d. All certifications under the authority of Company Approvals are to be made using signature, Inspection Stamp and date, except for Aircraft Technical Logs, where Company Approval Number may be handwritten.
- e. All work and inspection completed under the authority of Company Approval shall be to quality standard conforming to following requirements:
 - i. Appropriate manufacturer's technical publications and other approved documents raised by the Company.
 - ii. Company procedures e.g. Engineering Procedures Manual, other Directives and Circulars that may be issued by the Company from time to time.
 - iii. Issue of CRS in accordance with the DGTA TAMM requirement.

2.6 Suspension of Approval

- a. The SMM may suspend/revoke the Company Approval at any time where a person is found not to be in compliance with Company, Authority or OEM procedures or requirements.
- b. The Quality Manager may also suspend/revoke an approval under SMM discretion where an investigation is to be carried out following an incident.
- c. SMM will issue a suspended/revoked letter to the personnel involved and stamp shall be surrendered to Quality Manager (QM).

2.7 Termination of Approval

- a. Where the Company Approval is terminated, the copy of the personal Approval document will be endorsed cancelled, dated and signed.

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- b. Where the person has terminated their employment, the personal file will be extracted from the Quality Department records and archived. Inspection Stamp shall be surrendered to QM upon leaving the Company.
- c. Archived records are held for a minimum of two (2) years.

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DEVIATIONS AGAINST A PROCEDURE

1.0 Introduction

- 1.1 Procedures provide the means and methods for the Company to carry out its function and are to be adhered to at all times to ensure safe practices and compliance with all relevant requirements.
- 1.2 Circumstances may occur in a particular case where the relevant procedure does not address the requirement, or due to changes the procedure is no longer acceptable in its present form.
- 1.3 In such circumstances a concession may be requested by SMM to DAR for approval.

2.0 Procedure

- 2.1 Where it is established that:
 - a. Circumstances in a particular case the relevant published procedure cannot be used in its present form to carry out the work required, or
 - b. A change in requirements or circumstances requires an amendment to a procedure and an interim procedure is required pending amendment to the original.
 - c. A request for a concession may be made to the Quality Department to deviate from the published procedure for a given time.
- 2.2 The proposal will be made and is to include the reason for the request, the proposed time scale and the temporary procedure using Request for Once-Off Authorisation – **(GAM/E-019)**.
- 2.3 The request will be passed to the SMM for review, comment and agreement. Any necessary further investigation may be taken by the SMM to establish that the concession is necessary and will satisfy the requirement.
- 2.4 When evaluating a request for concession from company procedures, the SMM will take into account the effect on airworthiness of aircraft operation, the limitations imposed by the applicable regulations, OEM specifications, all safety aspects and company maintenance organization approval.
- 2.5 SMM shall submit to DAR for approval formally in writing the status or any changes made to the deviation.

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QUALITY DEPARTMENT – APPROVAL RENEWAL

1.0 Introduction

- 1.1 Personal Authorisations are issued by the SMM for periods of up to 1 year. For the renewal of the Company Approval, qualification, training and experience criteria have to be met.
- 1.2 As part of the issue or renewal procedure, the SMM will carry out Technical Competency Assessment of approved personnel to ensure continuing knowledge of subjects covered by the MMP and OEM Maintenance Procedures.

2.0 Procedure

- 2.1 The approval holder which has been authorized by SMM will be re-assessed not exceeding twelve (12) months.
- 2.2 The approval holder shall submit the Application for Company Approval form (**GAM/Q-012**) to the SMM for evaluation and acceptance. A competency assessment will determine the extension/renewal of their Approval, under the authorisation of SMM.
- 2.3 At the Technical Competency Assessment, the following will be carried out:
 - a. Review of training and continuation training:
 - i. Refresher training (Human Factor, Company Procedure) or type training to have been completed within the last two (2) years.
 - b. Technical Assessment may be carried out:
 - i. Where an assessment needs to be carried out, SMM will assess the candidate knowledge and understanding of Company Procedure, Human Factors, all authority regulations, aircraft and components, Maintenance Schedule of specific aircraft, general working safety procedures, latest AD/SB on particular aircraft and components and etc. The assessment will also be used to review the personal file to update experience and training records. Any other matters on the file, such as personal details and outstanding audit reports, will also be reviewed.
- 2.4 Where the assessment is satisfactory a personal data file will be updated for safe-keeping and future reference. Copies of the assessment and any supporting documents will also be placed in the personal file.
- 2.5 If the assessment is unsatisfactory in any way, the person will be advised, and a proposed course of action agreed to satisfy the requirement. A further Technical Competency Assessment should also be agreed at this time.
- 2.6 When all is satisfactory, the approval will be renewed by issuing a new Company Approval Certificate and Authorisation Letter.

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VENDOR AUDITS

1.0 Introduction

- 1.1. To ensure continuing compliance airworthiness of aircraft and GAM operating requirements, Quality audits are to be carried out on all MSN supplying GAM with parts, spares, components, tools, equipment's or services purchased for the purpose of aircraft maintenance activities and operation.
- 1.2. This audit is necessary to ascertain that:
 - a. The vendor can satisfy GAM that the products supplied shall conform to the specified requirements identified by part numbers or any technical data in accordance with the aircraft/engine or equipment manufacturer's parts catalogue or any technical document.
 - b. There is a satisfactory quality system in place.
 - c. Aircraft maintenance activities or other services carried out in conformance to the relevant manufacturer's instruction, directives and/ or technical publication.
- 1.3. This procedure will also support the EPM 3-05 (Vendor Approval) procedure.
- 1.4. Sub-contractors who are not qualified under part 145/AMO or equivalent acceptable to the authority shall be subjected to a physical audit prior to being approved by the QM. The evaluation audit shall be conducted by the Quality Department.
- 1.5. If there is a need for continued use of the services of the sub-contractor then the sub-contractor shall be audited on every two years and shall be included in the audit plan.
- 1.6. Contracted organisation whose services are required continually shall be audited on every two years and shall be included in the audit plan.

2.0 Procedure

- 2.1 Request for MSN can be made by anybody within the Engineering Department but only to be authorised and signed by the SMM, Engineering Manager or his delegate. Vendor Request Form (**GAM/E-011**) to be filled up with all the required information and forward to Quality Department.
- 2.2 Quality personnel shall send the Vendor Quality Assurance Evaluation Questionnaire (VEQ) (**GAM/Q-003**) to the prospective vendor by e-mail.
- 2.3 Once received a completed VEQ from the prospective vendor, the Quality personnel will vet through the VEQ together with the supporting documents which the vendor pro- claimed in the VEQ for approval.
- 2.4 If the information is inadequate, then the Quality personnel will return the VEQ to the organisation and seek further information.

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- 2.5 If the information shows the vendor meets the contractual requirements (i.e price, delivery time and also necessary quality assurance requirements) and suitable to be selected as the MSN, Quality personnel shall submit the VEQ, together with all copy of vendor's existing certification to SMM for approval and subsequently register under Maintenance Support Network (GAM/Q-057).
- 2.6 MSN shall contain leading vendor's information:
- MSN's Full Name
 - MSN's Address
 - Scope of Service
- 2.7 Quality Department shall review, and update the MSN whenever required or at least once a year.
- 2.8 The validity of the authorisations for the MSN is 2 years and the records also will be kept in a file available in the Quality Department for a minimum of 2 years.
- 2.9 The QA Department shall carry out regular audits, at least once every 2 years, to ensure that the agreed standards are maintained by the vendor. Renewal audit of vendor can be performed either by "desktop audit" or physical / on-site audit. In the event of logistic problem (i.e. foreign/oversea vendors) could be a factor of performing "on-site" audit, QA personnel shall issue Vendor Quality Assurance Evaluation Questionnaire (**GAM/Q-003**) as a "desktop-audit" survey. **Alternatively**, QA personnel may conduct physical audit at vendor facility for renewal audit and results of audit shall be documented on Vendor Audit Checklist (**GAM/Q-071**).
- 2.10 Audit will commence accordance to the subcontract companies must be able to produce appropriate facilities, trained personnel, tooling and certification capability recognised by the CAAM/DGTA for the scope work contracted out.
- 2.11 Quality personnel shall inform the finding and will advise the organisation.
- 2.12 Quality personnel shall release Audit Report (**GAM/Q-009**) with Non-Compliance Finding (NCR) (**GAM/Q-010**) to the organisation if necessary.
- 2.13 GAM reserves the right to remove vendor from the Maintenance Support Network (GAM/Q-057) if quality and service performance are found to be unsatisfactorily.

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VENDOR APPROVAL

1.0 Introduction

- 1.1 GAM shall only obtain all parts, spares, tools, equipment's or services purchased for the purpose of aircraft maintenance activities and operation are from sources that comply with the authority's requirements. These approved suppliers, contractors and subcontract companies are termed as Maintenance Support Network (MSN).
- 1.2 MSN to be used by GAM shall be evaluated under GAM Quality System.
- 1.3 All acceptable organisations are listed in the list of Maintenance Support Network (MSN) (**GAM/Q-057**) which prepared by QM and verified by SMM before being used.
- 1.4 All MSN shall be subjected to an assessment or evaluation prior acceptance as GAM's Approved MSN.
- 1.5 Types of MSN are as follows;

a. Supplier

- i. GAM may source for supply of parts such as raw materials, consumables, standard parts, aircraft components, tools, equipment, maintenance data from Original Equipment Manufacturers (OEMs), distributors approved by the manufacturers, stockists, other maintenance organisations and operator.

b. Contracted Organisation

- i. GAM may contract out services such as specialised work like plating, coating, heat treatment, NDT, welding, weighing, etc., for which in-house capability may not be available.
- ii. These may be contracted to CAAM/DGTA organisations with the related approval ratings.

c. Subcontracted Organisation

- i. GAM may also sub-contract out services such as specialised work like plating, coating, heat treatment, NDT, welding, weighing, etc. for which in-house capability may not be available. However, GAM is only allowed to sub-contract services if GAM has the expertise to accept the performed maintenance and also has the competence to control and monitor such sub-contractors.
- ii. These may be sub-contracted to non-CAAM/DGTA approved organisations with the related qualifications.

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- iii. The services from subcontracted organisations shall be utilised within GAM's scope of work and shall only be used after subjecting them to a quality system assessment comprising of specifically prepared quality plan, audit and an appropriate internal authorisation by the QM after review and approval.
- iv. The contract with the sub-contractor shall clearly mention the provision of right of access for the Authorities.

2.0 Procedure

- 2.1 Where an organisation is proposed for approval as either a supplier, contractor or sub-contractor, application will be made to the Quality Department using Vendor Request form (**GAM/E-011**).
- 2.2 The form shall be completed with details of the proposed organisation and will include details of the service provided.
- 2.3 Quality Department will decide the acceptability of the application and the evaluation requirement. Vendor evaluation can be carried out either by a desktop audit - questionnaire and documentation or by a physical audit visit.
 - a. Desktop Audit:
 - i. Quality personnel will send a copy of Vendor Quality Assurance Evaluation Questionnaire (VEQ) (**GAM/Q-003**) to the organisation by e-mail.
 - ii. Upon receipt of response to the VEQ, the Quality personnel will vet through the VEQ together with the supporting documents and later forward to SMM for approval.
 - b. Physical Audit Visit:
 - i. QM shall appoint Quality Auditor to lead the audit team.
 - ii. Quality Auditor will audit the vendor and submit the Audit Report to QM for his evaluation and decision.
 - iii. Quality Department will inform the requester of the successful or failure of the new vendor application. Successful organisation will be approved and added in the MSN (**GAM/Q-057**).
- 2.4 MSN (**GAM/Q-057**) is a listing of all the organisations approved by QM and is under the custody of QM.
- 2.5 Copy of up-to-date MSN shall be made available to the Engineering Department and other departments as required.

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- 2.6 MSN shall contain leading vendor information's;
- MSN's Full Name
 - MSN's Address
 - Scope of Service
- 2.7 Quality Department shall review, and update the MSN whenever required or at least once a year.
- 2.8 Due to quality issue, GAM may suspend or remove the vendor from the MSN (**GAM/Q-057**).
- 2.9 The validity of the authorisations for the MSN is 2 years and the records also will be kept in a file available in the Quality Department for a minimum of 2 years.
- 2.10 The validity of the authorisations for the MSNs is 2 years effectively on August 2021. A revalidation of the MSN shall be carried out by the Quality Department before the expiry of the validation by re-evaluate the MSN as per EPM 3-04 Vendor Audit.

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QUALITY DEPARTMENT AUDIT PROGRAMME

1.0 Introduction

- 1.1. In order to maintain control over continuing AMO approval compliance, the quality management system and product quality, a comprehensive quality audit programme is carried out by the Quality Audit personnel.
- 1.2. The Quality audit programme will at least include, verification, of compliance with the approved procedures approved in respective procedure manuals. The overall audit program comprises:
 - a. Planned internal audits
 - i. Organisation Procedure Audit (detailed in this chapter)
 - b. Surveillance audits
 - i. Both organisation procedure audit and aircraft audit.
 - c. Vendor Audit
 - i. Detailed in EPM 3-04 (Vendor Audit)
- 1.3. The audit plan is managed by QM and updates it as required and makes it available to the authority. It is established annually and makes it possible to be sure that every feature of AMO conformance is verified on every 12 months.
- 1.4. Quality Department will maintain an audit file which will include all correspondence, audit reports and other information related to the audit programme.
- 1.5. All internal audit reports will be kept for 2 years following the correction date and for all DGTA document shall be kept for 5 years.
- 1.6. The Quality Audit will cover the following subject:
 - a. Facilities as detailed in Approved MMP.
 - b. Staff levels and qualifications.
 - c. Compliance with the MMP Procedures and Instructions.
 - d. General housekeeping and cleanliness of the workplace.
 - e. Equipment, tooling and materials controlled correctly and calibrated as necessary.
 - f. Manual and other documents correctly amended and maintained in good condition.
 - g. Maintenance records, logbook, etc., are correctly completed and certified as appropriate.

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- h. Periodic sampling of aircraft surveillance checks on all aircraft types to ensure that the approved maintenance schedule requirements are met.
- i. Safety and fire precautions observed.
- j. Working practices comply with airworthiness requirements and maintenance organization procedures and instruction.
- k. Adequacy of procedures for the area.

2.0 Company Audit Policy Including Compliance Audit

- 2.1 GAM will be regularly audited against all applicable quality requirements as laid down in this manual at least one time each 12 months.
- 2.2 QM will prepare the Audit Plan (**GAM/Q-007**). The Audit Plan will be submitted to Accountable Manager for approval. Once the Audit Plan is approved, the QM shall distribute it to all respective Head of Department.
- 2.3 The audit plan dates can be adjusted in the schedule, taking into account the basis of findings from previous audits or the extent of problems in the area, or to suit the Quality audit personnel's and the auditee's availability. Any changes to the audit plan shall be subjected to the approval from the Accountable Manager.
- 2.4 Quality audit personnel will inform the respective department(s) on the audit plan. The respective departments shall be informed **a week** prior to the commencement of the audit via email.
- 2.5 Quality audit personnel will perform audit using audit checklist approved by the QM. AMO DGTA Audit Checklist form (**GAM-Q/008B**) is to be used. The Checklist will be filed together with the audit report. Where there is a need, a customised checklist will be prepared or existing checklist will be amended, the checklist amendment is/are to be approved by the QM prior to their usage.
- 2.6 At the discretion of the QM, desktop audits can replace physical audits wherever evidence could be gathered through video clippings, photographs, or documents.
- 2.7 Audit will be carried out by Quality Audit personnel in association with section/department in charge concerned or the authorised representatives.
- 2.8 An audit report (**GAM/Q-009**) and non-compliance request (**GAM/Q-010**) will be raised by the Quality Audit personnel against each finding **within 14 working days** on completion of every internal audit giving the details of audit findings, observation made during the audit and must describe the reference of the document, purposes and summary of the audit carried out and forwarded to the concerned department heads for taking necessary corrective/preventive actions within the specified time frame.

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- 2.9 The corrective actions will be drawn and implemented by HOD within the timescale as specified in paragraph 3.0 (Quality Audit Remedial Action Procedure) of this chapter.
- 2.10 On taking appropriate action to correct the discrepancies, the concerned department heads (HOD) will forward an action taken report within the time frame stipulated in the NCR. If the corrective action required is going to take more time, this will be reflected in the NCR.
- 2.11 Quality audit personnel will monitor the respond timescale once the audit report released to the auditee. Whenever the action is considered not adequate the **NCR will be kept open** and this fact will be brought to the notice of the concerned department head by the QM for desired corrective action and final closure of the NCR. This will also be brought to the notice of the Accountable Manager.
- 2.12 Quality audit personnel will send reminder(s) whenever the auditee does not respond, or the NCR(s) is still open. Maximum of **03 reminders** shall be sent to remind the auditee on the issue(s). The audit report shall then be escalated to the Management meeting after the 3rd reminder.
- 2.13 Details of reminder as below:

Description	Remarks
1 st Reminder	After 14 days of report released
2 nd Reminder	After 07 days of 1 st reminder
3 rd Reminder	After 07 days of 2 nd reminder

- 2.14 All audit related documents such as audit reports, NCRs, checklists used for audits, approved audit plans, minutes of the management review meetings, etc., in both hard and soft copies will be stored and maintained under the custody of the QM for a minimum period of 2 years. These documents will be stored in the designated place at the QM's office.
- 2.15 Quality Audit personnel are independent of the audited activity, therefore the audit for Quality Department can be done by nominated personnel by the Accountable Manager from other section or outside Quality audit personnel and must comply with the requirement as stipulated in paragraph 6.0 (Quality Audit personnel) of this chapter.
- 2.16 Accountable Manager shall receive a copy of all Audit Reports.
- 2.17 The scheduled audits will be carried out as per the approved audit plan and surveillance audits will be carried out as a part of spot checks while maintenance is undergoing. Additional audits if felt necessary by the QM will be undertaken on a need basis.

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2.18 completion of the audit, the completed report is filed in the audit file. The Quality audit personnel makes a report of the audit findings including non-compliance finding, if any. The files will include all correspondence, audit reports and other information related to the audit.

3.0 Quality Audit Remedial Action Procedure

3.1 The main function of the quality feedback system is to ensure that all findings/observations emerging from the internal audits of GAM are properly investigated/analysed and corrective/preventive actions are taken in a timely manner.

3.2 The feedback system enables the Accountable Manager and the Management of GAM to be informed of short falls in the organisational/safety requirements and compliance with all the authority requirements and the MMP.

3.3 All deviations from the set procedures and shortfalls will be recorded by the Quality audit personnels as findings termed as Non-conformance in the Non-Compliance Request (NCR) form **(GAM/Q-010)**.

3.4 The findings response time would be determined according to the Levels indicated in the NCR raised.

3.5 The audit reports shall be distributed by the respective Quality audit personnel to the concerned auditee/HOD for taking necessary corrective/preventive actions within the specified time frame.

3.6 The findings recorded as non-conformance will be classified as per their severity and their effect on flight safety.

3.7 The Non-conformances recorded by the Quality audit personnels are classified under the following two levels:

a. Level-1 finding is any significant non-compliance with respect to the regulations which lowers the safety standard and hazards seriously the flight safety.

All Level 1 - findings will be addressed immediately (before next flight).

b. Level-2 finding is any non-compliance with respect to the regulations which could lower the safety standard and possibly hazard the flight safety.

All Level 2 - findings shall normally be closed within 30 days. Whenever closure of non-conformances requires assistance from outside agencies or other constraints, then QM can grant reasonable extension.

3.8 The proposed corrective/preventive action and expected completion date shall be responded to Quality Department by the Auditee/HOD within 14 days.

3.9 The Auditee/HOD will make necessary corrections initially and further analyse/investigate the root causes and take necessary corrective and preventive actions as per the agreed timeline indicated in the audit report. In this regard, the

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preventive action should address the root causes of the respective finding to ensure there is no recurrence.

- 3.10 The Auditee/HOD will establish the root causes and take the necessary corrective/preventive actions and indicate the details in the corrective action column.
- 3.11 The Quality audit personnel will verify the corrective actions taken, completed or implemented by the departments, if found satisfactory he/she will accept the NCR(s).
- 3.12 The verification is normally based on the evidence forwarded by the auditee/HOD for level 2 non-conformances and through follow up audits for all level 1 non-conformances.
- 3.13 If the corrective action taken is not considered to be satisfactory, the same will be indicated to the Auditee/HOD for further necessary action.
- 3.14 Based on this feedback the Auditee/HOD will reanalyse the non-conformances and address necessary corrective/preventive actions.
- 3.15 The Quality audit personnel will perform follow up audits if felt necessary for the reverification of the satisfactory closure of audit findings.
- 3.16 Whenever the auditee does not respond within the agreed time limits for analysing the root causes and taking necessary corrective/preventive actions the Quality audit personnel will raise the issue to the QM and the Accountable Manager.
- 3.17 The Quality audit personnel will forward the completed audit reports to QM for the final closure of the corrective/preventive actions.
- 3.18 All records pertaining to the quality audit such as audit program, audit reports, checklists used for performing audits, minutes of the management reviews etc., will be retained by the QM in his office for a minimum period of 2 years after the date of closure of the NCR(s). These records may be subjected to routine audits by the Authority / Operator to validate the effective functioning of GAM Quality System.

4.0 **Quality Review Meeting**

- 4.1 The results of all audit reports are reported to the Accountable Manager and are used to provide a measurement of the effectiveness of the quality management system.
- 4.2 A six-monthly Quality Review Meeting consisting of all relevant sections chaired by the Accountable Manager shall be convened by the Quality Manager to review current quality issues, Aircraft Maintenance Programs, resolve unsatisfactorily responses to audit recommendations and to ensure timely corrective actions for any deficiency.

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5.0 Independence

- 5.1 The Quality Department is a separate department within the maintenance organization. Quality personnel are independent from routine maintenance functions and are not directly involved with the day-to-day maintenance of the aircraft other than to review and audit the process. Staff joining the department will gain their independence by not carrying out audits for a period of two months of the aircraft/department/area where they have previously been working.
- 5.2 Quality standards are set by Quality Department and monitored by QM. The Accountable Manager shall receive a copy of all Audit Report and a copy extended to DGTA upon request.
- 5.3 The audit system should clearly establish a means by which audit report containing observations about non-compliance or poor standard can be actioned.

6.0 Quality Audit personnel

6.1 The Quality audit personnel shall devote full time for the audit. Below are Quality audit personnel's responsibilities:

- a. He/She shall familiarise himself / herself with the documents including references.
- b. He/She shall develop questionnaires to check the implementation of policies and procedures which are to be carried out accordingly.
- c. Opening Audit meeting is required. This meeting shall be organised by the Lead Auditor to brief the responsible Auditee on the Audit Programme.
- d. Quality Audit shall be performed in accordance with the prepared questionnaires. If non-compliance is observed, these shall be identified in draft sheets.
- e. QM shall be briefed from time to time on any doubt including all non-compliances found in the prepared draft sheets during the audit.
- f. A post-audit briefing for the responsible Auditee shall be done as soon as the audit is completed. Non-compliance or observations made to auditee shall be discussed and appropriate corrective action time scales shall be agreed with each auditee.
- g. Prepare Audit report and NCR if any for QM approval and forward the report and NCR to the auditee and Accountable Manager.

6.2 Quality Audit personnel shall meet the following requirements:

a. **Qualification:**

- i. Hold a valid and current Aircraft Maintenance Engineer's License which is issued or validated by CAAM or;

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ii. A degree or diploma holder in aviation, engineering or science related courses.

b. Training:

i. Completed and attended Quality audit techniques and

ii. Maintenance Management Plan Briefing and

iii. Human Factor Training

c. Experience:

i. Minimum of 2 years of aviation experience either in aircraft maintenance or aircraft support workshops;

ii. By derogation to paragraph 6.2 (c) (i), experience in administering maintenance organization is also acceptable, and

iii. Perform a minimum of 2 complete audits including report writing, under supervision of qualified Quality audit personnel. The evidence of audit participation is documented in Quality audit personnel's Audit Logbook **(GAM/Q-035)**.

6.3 QM shall review and assess the qualification of Quality audit personnels before authorising them as qualified Quality audit personnels and the assessment is recorded in Quality audit personnel Assessment Checklist **(GAM/Q-034A)**.

6.4 Once assessment process is completed and QM is satisfied on the qualification, competency, and experience of the personnel, authorisation will be issued to the Quality audit personnels.

6.5 Authorisations for Quality audit personnels will be issued in the forms of Authorisation letter by QM **(GAM/Q-034)**.

6.6 In case of shortage of Quality Audit personnel, Quality audit personnels would be drawn from other departments who meet the requirements stated under paragraph 6.2.

6.7 The Quality audit personnels drawn from other departments would not be involved in auditing their routine department work during their assigned auditing period. The Quality audit personnel auditing the Quality Department shall be independent from the Quality Department.

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QUALITY AUDIT – HANGAR

1.0 Introduction

1.1 Quality audits of engineering hangar facilities are required to ensure compliance with Airworthiness regulations and Company operating standards.

2.0 Procedure

2.1 Audits of the engineering hangar facilities and associated procedures at GAM are to be carried out at the frequencies specified in the Audit Plan (**GAM/Q-007**).

2.2 An audit report (**GAM/Q-009**) will be generated on completion of every internal audit giving the details of audit findings and observation made during the audit. The audit will be carried out using the AMO DGTA Audit Checklist form (**GAM/Q-008B**) which lists all the elements as a guidance to ensure compliance to the relevant requirements.

2.3 Discrepancies from the audit, and those of a repetitive nature from previous audits, are to be discussed and agreed with the auditee. A copy of the audit report (**GAM/Q-009**) with Non-Compliance Request (**GAM/Q-010**) will be forwarded to the Auditee with a request for action. A response detailing necessary action will be required within the timescale stated in the form.

2.4 On receipt of the NCR, Quality Audit personnel will review the response and, if found satisfactory, will submit to QM for closure. The closed NCR(s) is kept and filed in an audit file available in the Quality Department.

2.5 If no response has been received by the date specified, or no agreement can be reached, the matter will be forwarded to the Quality Manager for further action.

2.6 Quality Audit Procedure is further detailed in EPM 3-06 (Quality Department Audit Programme)

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QUALITY AUDIT – TECHNICAL SUPPORT DEPARTMENTS

1.0 Introduction

1.1. Regular Quality audits of GAM Engineering Technical Support Departments are required to ensure continuing compliance with Airworthiness Regulations and Company operating standards.

2.0 Procedure

2.1 Audits of Technical Support Departments and their associated procedures are to be carried out at the frequency specified in the Quality Department Audit Plan (**GAM/Q-007**), or as directed by the Quality Manager.

2.2 An audit report (**GAM/Q-009**) will be generated on completion of every internal audit giving the details of audit findings and observation made during the audit. The audit will be carried out using the AMO DGTA Audit Checklist form (**GAM/Q-008B**) which lists all the elements as a guidance to ensure compliance to the relevant requirements.

2.3 Discrepancies from the audit, and those of a repetitive nature from previous audits, are to be brought to the attention of the department concerned with a request for proposed rectification action. The Audit Report with Non-Compliance Request (NCR) (**GAM/Q-010**) will be directed to Auditee with a request for action. A response detailing necessary action will be required within the timescale stated in the form.

2.4 On receipt of the NCR, Quality Auditor will review the response and, if found satisfactory, will submit to QM for closure. The closed NCR(s) is kept and filed in an audit file available in the Quality Department.

2.5 If no response has been received by the date specified, or no agreement can be reached, the matter will be forwarded to the Quality Manager for further action.

2.6 Technical Support Departments include, but are not limited to:

- a. Planning.
- b. Technical Records.
- c. Technical Library.
- d. Store.

2.7 Quality Audit Procedure is further detailed in EPM 3-06 (Quality Department Audit Programme)

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AUDIT – QUALITY DEPARTMENT

1.0 Procedure

- 1.1 The approved/appointed auditor is responsible for auditing the Quality Department on a regular basis or when requested by AM.
- 1.2 The Quality Audit is required to maintain Quality Department as an independent body in the company. This is also to ensure that the department maintain the quality and standard as well as requirement of TMM and other relevant airworthiness authorities.
- 1.3 Reviews will be carried out in the following areas as indicated by the Audit Plan.
 - a. Documentation.
 - b. Hangar.
 - c. Maintenance Support Network.
 - d. Technical Support Departments
- 1.4 Normally the audit will be carried out by reviewing the Quality records to ensure audits have been carried out at the prescribed periods and in accordance with the Audit Plan.
- 1.5 The appointed auditor may under certain circumstances combine this record and documentation review with a physical audit of any selected department or aircraft.
- 1.6 The appointed auditor will maintain a record of all reviews undertaken and will be in contact with the Quality Manager following the department review.
- 1.7 Once the audit completed, the audit report will be passed to the QM for review and response. Any non-compliance found during the audit will be raise using NCR form **(GAM/Q-010)**. The NCR shall be responded with the proposed corrective action(s) within the stipulated time stated in the NCR(s).
- 1.8 The appointed auditor will review the completed NCR(s) and, if the response is found satisfactory, the auditor will close the NCR and filed the audit package in the Audit file available in the Quality Department.
- 1.9 Quality Audit Procedure is further detailed in EPM 3-06 (Quality Department Audit Programme)

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DOCUMENTATION AUDIT PROGRAMME

1.0 Introduction

1.1 A continuous audit of completed Worksheets, Technical Log Sector Record Pages and associated documentation is carried out to ensure all the maintenance documents are completed and kept in accordance with the AMO requirements.

2.0 Procedure

2.1 Technical Records will be made available to the Quality Department of all the completed aircraft, workshop and associated documentation.

2.2 On a need basis, the Quality Audit personnel will obtain the maintenance documents (completed aircraft, workshop and associated documentation) required for audit and identify those completed or not required from the Technical Records section.

2.3 The selected documents will be reviewed for correct completion, certification, defects of a repetitive nature, and any other relevant factors.

2.4 An audit report (**GAM/Q-009**) will be generated on completion of every internal audit giving the details of audit findings and observation made during the audit. The audit will be carried out using the AMO DGTA Audit Checklist form (**GAM/Q-008B**) which lists all the elements as a guidance to ensure compliance to relevant the requirements.

2.5 Discrepancies from the audit, and those of a repetitive nature from previous audits, are to be discussed and agreed with the auditee. A copy of the audit report (**GAM/Q-009**) with Non-Compliance Request (**GAM/Q-010**) will be forwarded to the Auditee with a request for action. A response detailing necessary action will be required within the timescale stated in the form.

2.6 On receipt of the NCR, Quality Audit personnel will review the response and, if found satisfactory, will submit to QM for closure. The closed NCR(s) is kept and filed in an audit file available in the Quality Department.

2.7 If no response has been received by the date specified, or no agreement can be reached, the matter will be forwarded to the Quality Manager for further action.

2.8 Quality Audit Procedure is further detailed in EPM 3-06 (Quality Department Audit Programme)

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HUMAN FACTOR TRAINING

- 1.1. Human Factors in maintenance is the focus of so much attention today because human error has contributed to some of the aviation accidents and incidents.
- 1.2. Understanding the application of Human Factor and human performance issues in maintenance, can help in reducing or eliminating maintenance error.
- 1.3. The objective of Human Factor training are :
 - a. To enhance maintenance personnel awareness of individual and organisational human factors issues that may affect airworthiness of the aircraft.
 - b. To develop human factors skills such as communication, effective teamwork, task management, situational awareness etc. as appropriate to their daily/routine job to ensure safety and efficiency of maintenance operations.
 - c. To encourage positive attitude towards safety and to discourage unsafe behaviour and practices.
- 1.4. The following categories of personnel will be assessed for the need to receive initial training of Human Factor. In respect to the understanding of human factors issues, all maintenance, management, and quality audit personnel should receive training on Human Factors.
- 1.5. The following category of personnel should be assessed for Human Factor training:
 - a. Management Personnel – SMM, QM, MM.
 - b. Maintenance Personnel – MI/S, ATP, NTP.
 - c. Quality personnel.
 - d. Technical Record personnel – Planners, Technical Record.
 - e. Contract staff in above.
- 1.6. Initial training will be provided to personnel within six (6) months upon joining the company and every two (2) years for recurrence training.
- 1.7. Continuation training will be provided to ensure that staff remain current in terms of human factors and also collect feedback on Human Factors issues.
- 1.8. Topics and subtopics of the Training Syllabus to be addressed for the Human Factor Training is specified in EASA GM 145.A.30(e).

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- 1.9 Training will be conducted in house or can be outsourced to qualified and competent organization/personnel for the training which comply with AMO requirements.
- 1.10 Topics should cover the limitations of human performance and be related to maintenance engineering where possible.
- 1.11 Some of the topics may be covered in separate training (health and safety, management, supervisory skills, etc.) in which case duplication of training is not necessary.
- 1.12 Where possible practical illustrations and examples should be used, especially accident or incident reports.
- 1.13 Qualification of Instructors
- 1.13.1 GAM utilizes both in-house Instructors and External Training Service Providers to provide the necessary training for the employees. Therefore, it is imperative that the training provider, both in-house and external must have the necessary experience and qualification to conduct the required courses.
- 1.13.2 Instructors Qualifications
- a. In-house Instructor must be adequately trained and experienced on a specific subject, process, an appropriate category of a specific aircraft type, components, or model/series of engines before he/she can be deemed to be qualified by QM to conduct training for that particular subject, process, aircraft/component category or engine type.
- b. The Instructors shall meet the following requirements:

	Basic / Regulatory Training	Technical / Specific Training
Qualification	<ul style="list-style-type: none"> i. Hold a valid and current Aircraft Maintenance Engineer's License which is issued or validated by CAAM or other NAA; or ii. A diploma/degree holder in related field; 	<ul style="list-style-type: none"> i. Hold a valid and current Aircraft Maintenance Engineer's License which is issued or validated by CAAM or other NAA; or ii. Company Approval Holder; or iii. Degree holder in related field;
Training	<ul style="list-style-type: none"> i. Completed and attended Instruction technique / Train the Trainer; and 	<ul style="list-style-type: none"> i. Completed and attended Instruction technique / Train the Trainer; and ii. Attended and experienced in specific subject to be taught.

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	ii. Attended and experienced in specific subject to be taught.	
Experience	i. Minimum of 3 years of aviation experience either in aircraft maintenance or experience in administering maintenance organization is also acceptable	i. Minimum of 3 years of aviation experience either in aircraft maintenance or aircraft support workshops

- c. QM shall review and assess the qualification of instructors before authorising them as qualified instructor and the assessment is recorded in Training Instructor Assessment Checklist (**GAM/Q-048**).
- d. Once assessment process is completed and QM is satisfied on the qualification, competency, and experience of the personnel, authorised instructors will be listed in the List of Approved Instructor (**GAM/Q-020**).
- e. Training Coordinator shall maintain a List of Approved Instructor (**GAM/Q-020**) for the types of courses to be conducted. The listing is available at the Quality Assurance Department.
- f. For OJT Instructor, QM accepts supervisors with Company Authorization for that particular operation or process to conduct OJT on that particular operation or process.
- g. For each classroom course performed at GAM facility, Training Evaluation Form (**GAM/QA-045**) will be completed. The Training Coordinator shall compile and address issues that require corrective action which may include additional training or support for the Instructor to QM.

1.14 In the event that in-house Instructors are deemed not qualified to conduct a particular course, and External Training Service Provider is deemed necessary, Training Coordinator and QM to determine and select the qualified External Training Service provider.

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COMPANY APPROVAL SYSTEM

1.0 Purpose

- 1.1 To ensure common standards applied when granting company approval to maintenance personnel and adequately trained in order to perform the various aircraft and component maintenance tasks adequate, proper, efficient and safe.
- 1.2 This procedure shall be referred by all maintenance personnel as a guideline before granted with Company Approval.

2.0 Personnel Approval System

- 2.1 Maintenance personnel who intended to apply for Company Approval must fulfil the basic requirement layout in this chapter.
- 2.2 Senior Maintenance Manager (SMM) together with Quality Manager (QM) have the authority to decide the category and function of Company Approval based on applicant qualification and experience.
- 2.3 The Company Approval will be given to GAM maintenance personnel subject to his qualification and experience on the aircraft type. The Company Approval shall only grant after the personnel has satisfy all criteria and pass the job competency assessment.
- 2.4 All personnel shall apply his authorisation as per function stated in the Company Approval Certificate (**GAM/Q-013B**). Any violation to this may subject to disciplinary action.
- 2.5 The company Approvals are classified by **Functions** as reflected in the item 4.0 in this chapter.
- 2.6 Period of validity of the approval is one (1) year / twelve (12) months and shall be stated in the Company Approval Certificate (**GAM/Q-013B**).
- 2.7 If the personnel failed during the assessment, the next assessment is after period of one (1) month.

3.0 Minimum Requirements

3.1 Approval Holder (MI/S) – Category (Mech/Avio)

- a. Must be at least twenty-one (21) years old.
- b. Must obtained DCAM/EASA Aircraft Engineer License equivalent to their trade.
OR
- c. Experience for at least 5 years as Qualified Aircraft Tradesman for the aircraft type.
OR

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- d. Possess Engineering Degree or Diploma with at least 5 years experiences in the aircraft type. **AND**
- e. Must have attended aircraft type training.
- f. Understand TAMM regulation in relation to their level of work.
- g. Passed the Job Competency Assessment by SMM.
- h. Must be conversant with the MMP and EPM.
- i. Has attended Human Factor training.

3.2 Approval Holder (ATP) Category – (Mech/Avio)

- a. Must be at least twenty-one (21) years old.
- b. Possess Engineering Degree or Diploma in Aviation Maintenance. **OR**
- c. Qualified Aircraft Tradesman with experience in aircraft maintenance. **AND**
- d. Completed all aircraft basic courses and aircraft training to their respective trades.
- e. Must have attended aircraft type training.
- f. Understand TAMM regulation in relation to their level of work.
- g. Passed the Job Competency Assessment by SMM.
- h. Must be conversant with the MMP and EPM.
- i. Has attended Human Factor training.

3.3 Non-Authorised Personnel (NTP)

1. Warehouse Operation.

- a. Must be at least twenty-one (21) years old.
- b. Have at least 1-year experience in relevant operation environment (Advantage for tools controls or spare controls). **OR**
- c. Holding company approval for store inspection (E1) from GAM Part 145 operation.
- d. Passed the Job Competency Assessment by SMM.
- e. Has attended Human Factor training.

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2. Publication, Record and Planning.

- a. Must be at least twenty-one (21) years old.
- b. Degree holder with 6 Months experience in relevant operation. **OR**
- c. Diploma holder with 1 Year experience in relevant operation. **OR**
- d. Certificate holder with 2 Year experience in relevant operation. **AND**
- e. Computer literate.
- f. Passed the Job Competency Assessment by SMM.
- g. Has attended Human Factor training.

3. Ground Handling, Service and Ground Handling, Assist with direct supervision in noncomplex and noncritical maintenance task.

- a. Must be at least twenty-one (21) years old.
- b. Tertiary education in aviation maintenance under basic training
- c. Passed the Job Competency Assessment by SMM.
- d. Has attended Human Factor training.

4.0 Function

4.1 The Function granted to the approval holder shall have meet with the requirements of and scope of work as below.

Function	Scope	Prerequisite
1. Inspection	Inspection refers to the process of examining equipment or systems to detect any potential defects or failures before they occur or worsen. The purpose of inspection is to identify and address any issues that could cause breakdowns or safety hazards, as well as to ensure that equipment is operating at peak performance. Inspections can be conducted using a variety of methods, including visual inspections, non-destructive testing (NDT), and performance testing.	<ul style="list-style-type: none"> i. MI/S or ATP. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.

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Function	Scope	Prerequisite
2. Servicing	Servicing refers to the process of performing routine maintenance tasks on equipment or systems to ensure that they continue to operate efficiently and reliably. Servicing typically involves cleaning, lubricating, adjusting, and replacing parts or fluids as needed to maintain optimal performance.	i. MI/S or ATP. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
3. Repair	Repair refers to the process of restoring equipment or systems to a functioning state after they have experienced a failure, damage, or malfunction. Repairs can involve replacing or repairing damaged parts, cleaning, and recalibrating equipment, or making adjustments to the system to restore its proper operation. Repairs may be necessary due to normal wear and tear, accidental damage, or unforeseen events such as equipment failure or natural disasters.	i. MI/S or ATP. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
4. Replacement	Replacement involves replacing damaged or retired parts of a system to restore its proper operation. Replacement may be necessary due to normal wear and tear, accidental damage, or unforeseen events such as equipment failure or natural disasters.	i. MI/S or ATP. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
5. Testing	Testing refers to the process of evaluating the performance, functionality, and safety of equipment or systems. Testing can be conducted in a variety of ways, including visual inspections, performance testing, and diagnostic testing. The purpose of testing is to identify any defects or malfunctions in the equipment or system and to ensure that it is operating within the required specifications.	i. MI/S or ATP. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.

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Function		Scope	Prerequisite
6.	Functional Check	Functional check refers to the process of testing the functionality of equipment or a system to ensure that it is operating correctly and safely. A functional check may involve a series of tests that are designed to evaluate the performance of the equipment or system under normal operating conditions.	i. MI/S or ATP. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
7.	Leak check	Leak check refers to the process of testing for leaks in a system of equipment that contains fluids, gases, or other substances. A leak check can be performed using a variety of methods, including visual inspections, pressure tests, and leak detection equipment.	i. MI/S or ATP ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
8.	Engine ground run (Aeroplane ONLY)	Engine ground run refers to the process of starting and operating an aircraft engine while the aircraft is on the ground. An engine ground run is typically performed after maintenance or repairs have been completed on the engine, or as part of routine maintenance checks to test the engine's functionality and performance, and to ensure that it is operating within the required specifications.	i. MI/S. ii. Have attended Engine ground run training. iii. Have attended aircraft type training. iv. Able to read and understand an instruction and diagram in the maintenance publication.
9.	Modification	Modification refers to the process of making changes or improvements to equipment or systems to improve their performance, reliability, safety, or compliance with regulations. Modifications can involve adding new features, replacing or upgrading components, or redesigning entire systems to meet new requirements or address specific issues.	i. MI/S. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.

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Function		Scope	Prerequisite
10.	Independent maintenance inspection	Independent maintenance inspection refers to a process of conducting maintenance inspections by an individual who is not involve in the work performed for the equipment or system being inspected. The purpose of independent maintenance inspections is to provide an unbiased evaluation of the equipment or system's condition, performance, and safety and security.	i. MI/S. ii. Familiar and experience with the aircraft or systems. iii. Have attended aircraft type training. iv. Able to read and understand an instruction and diagram in the maintenance publication.
11.	Daily inspection	Daily inspection refers to a routine inspection process conducted on an aircraft on a daily basis. The purpose of a daily inspection is to identify any potential issues or problems that could impact the aircraft performance, reliability, or safety.	i. MI/S. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
12.	Certificate of Release to Service (CRS)	CRS refers to an authorised to issue a maintenance release and certify the aircraft returned to service in airworthy condition.	i. MI/S. ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
13.	Certificate of Maintenance Review (CMR)	CMR refers to documentation review to ensure that the aircraft's maintenance records are complete, accurate, and up-to-date, and that the aircraft is in compliance with all applicable regulations and safety standards.	i. Maintenance Manager. ii. Able to translate the instruction. iii. Have a knowledge in continuing airworthiness management systems.

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Function		Scope	Prerequisite
14.	Base Maintenance Release (BMR)	BMR refers to the issuance of release statement following a comprehensive scheduled maintenance inspection and overhaul of the aircraft typically at a designated maintenance base to confirms that the aircraft has been maintained in accordance with the manufacturer's maintenance manuals, regulatory requirements, and industry standards. It also confirms that any discrepancies or issues identified during the maintenance check have been addressed and corrected to ensure the aircraft's safe operation.	<ul style="list-style-type: none"> i. Maintenance Manager ii. Able to translate the instruction. iii. Have a knowledge in continuing airworthiness management systems.
15.	Reserved		
16.	Store Inspector	Function issued to Store inspector whose responsible is to inspect aviation components and parts to ensure compliance with regulations and industry standards. During an inspection, Store inspector will typically review documentation, such as certifications, and examine the aviation components and parts to identify any non-compliance issues.	<ul style="list-style-type: none"> i. 6-Month aviation maintenance experiences. ii. Have a knowledge of component or part or item identification. iii. Familiar with the component acceptance process.
17.	Planning	Responsible for planning and scheduling the Scheduled Maintenance Inspection, defect rectification, Service Bulletin or Airworthiness Directive compliance of an aircraft to ensure that aircraft are maintained in accordance with regulatory requirements and industry standards. This involves developing a detailed plan for maintenance activities based on aircraft usage, manufacturer recommendations, and regulatory requirements.	<ul style="list-style-type: none"> i. 6-Month aviation maintenance experiences. ii. Able to translate instruction and fully understand the framework of aircraft maintenance. iii. Have some technical background.

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Function		Scope	Prerequisite
18.	Technical records	Responsible for managing the technical records of aircraft to ensure that technical records are accurate, complete, and up to date. This involves ensuring that all maintenance, repair, and modification activities are accurately recorded in the technical records, and that all required documentation is complete and up-to-date.	<ul style="list-style-type: none"> i. 6-Month aviation maintenance experiences. ii. Able to translate instruction and fully understand the framework of aircraft maintenance. iii. Have some technical background.
19.	Technical Library	Responsible for managing the technical publications related to aircraft maintenance, repair, and overhaul activities. The primary role of Aviation Technical Publication personnel is to update and maintain technical publications, which may include maintenance manuals, repair manuals, illustrated parts catalogues, service bulletins, and other technical documents.	<ul style="list-style-type: none"> i. 6-Month aviation maintenance experiences. ii. Able to translate instruction and fully understand the framework of aircraft maintenance. iii. Have some technical background.
20.	Carried forward unserviceability (CFU)	CFU is a function of deferring a maintenance action that cannot be completed immediately, and the defect or malfunction is carried forward to the next inspection or maintenance activity.	<ul style="list-style-type: none"> i. MI/S ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.

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Function		Scope	Prerequisite
21.	Flight Test Maintainer	Flight Test Maintainer is a function of taking a data during flight tests to monitor the performance of the aircraft systems or components. This data can be used to diagnose problems and identify areas for improvement in the aircraft operation and may using specialized equipment to collect data on a wide range of parameters, including engine performance, rotor vibration, etc.	i. MI/S ii. Have attended aircraft type training. iii. Able to read and understand an instruction and diagram in the maintenance publication.
22.	Towing	Aircraft towing is a function of manoeuvring the aircraft on the ground using a specialized vehicle and ground support equipment.	i. MI/S or ATP. ii. Have attended towing training.
23.	Marshalling	Marshalling is a function of visual communication between the ground personnel and the flight crew to guide an aircraft safely to its parking position on the ground clear of any obstacles or hazards.	i. MI/S or ATP. ii. Have attended marshalling training.

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TECHNICAL PUBLICATION CONTROL

1.0 Introduction

- 1.1 Technical Publication personnel is responsible for holding and making available current regulatory publications, maintenance publication and related approved data.
- 1.2 Technical Publication maintains records that contain the register of all available publication, its revision status, copy number, holders and location etc. The contents are update regularly to reflect the latest information on revision status/amendment, available publication etc.
- 1.3 For publication receive by SAO, the publication shall be recorded as para 1.2 once a new revision received. Technical Publication shall be requested for an updated Squadron Publication Master list quarterly.
- 1.4 All technical publication including revision/amendments, new publication is registered immediately upon receipt in the publication register.
- 1.5 Non-OEM publication control by Technical Publication is Technical Instruction, document mainly produced by AEO (Authorized Engineering Organisation) i.e. Aircraft Repair Scheme, Modification Documents and etc.
- 1.6 Technical Publication maintain the Master copy either in hardcopy or softcopy of all Technical Publication and shall ensure to be properly maintain current and in good condition.

2.0 Procedures

- 2.1 All new incoming publications as a complete document or amendment shall be processed accordingly. Any new or/and revision of document which is not yet endorsed by DAR should be processed using **GAM/E-013A Technical Instruction Compliance Form**.
- 2.2 The process of **GAM/E-013A Technical Instruction Compliance Form**, is reviewed and sentencing by Technical Services; review and planned by the Planning Section and certified by the Maintenance Manager or Senior Maintenance Manager (SMM).
- 2.3 After a process using **GAM/E-013A Technical Instruction Compliance Form** is completed, **GAM/E-020A Publication Master Listing** shall be updated stating the latest revision status and certified by SMM and endorsed by DAR.
- 2.4 All **Foreign Source Data** received shall be reviewed, planned and certified using **GAM/E-013A Technical Instruction Compliance Form**. The data which is controlled by Technical Publication must be registered using **GAM/E-020A Publication Master Listing** and endorsed by DAR before used.

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- 2.5 All **Airworthiness Directive (Ads), Service Bulletins (SB) and Service Information Letter (SIL)** received shall be reviewed, planned and certified using the **GAM/E-013A** Technical Instruction Compliance Form. The data which is controlled by Technical Publication must be registered using **GAM/E-020A Publication Master Listing** and endorsed by DAR before used.

- 2.6 Maintenance Manager or SMM shall ensure the sentencing made by Technical Service and Planning Section are correct and the applicable publications such as SB or AD are incorporated in AERONET accordingly for monitoring purposes.

- 2.7 Only the publication that has been registered using **GAM/E-020A Publication Master Listing** and has been endorsed by DAR is approved to be used by Approved Maintenance Organization (AMO) or Approved Engineering Organization (AEO).

- 2.8 The Planning Section will include and update the AD/SB inspection and sentencing in the AERONET and monitor accordingly.

- 2.9 Technical publication in softcopy shall be updated to all the company registered computer in the master list where the software has been declared to be distributed by Technical Publication Section.

- 2.10 A worksheet shall be issued by the Planning Section for any applicable SB or AD to comply with the requirement stated in the 'Compliance' section of the documentation.

- 2.11 All newly published AD and SB will be listed and endorsed by customer quarterly.

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PURCHASE OF PUBLICATIONS

1.0 Introduction

1.1 It is important that all Technical Publications are maintained to the latest Revision. There will be a requirement for GAM to subscribe to the OEM publication related to the aircraft / engine / component being maintained by the organisation.

2.0 Procedures

2.1 Requisition for new publication shall be initiated using Purchase Requisition Form (PRF) through Gam's system. Respective section head or Senior Maintenance Manager (SMM) will review and justify.

2.2 Once the PRF has been approved, Technical Publication Section shall be responsible for procurement and/or initiate purchasing process.

2.3 Technical Publication shall raise the same form for publication subscription renewal. Purchase or renewal of Publication shall be approved by Respective section head or Senior Maintenance Manager.

2.4 Once receipt publication, Technical Publication Section will update and distribute to the recipients as per EPM 4-01 Technical Publication Control.

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APPROVED PUBLICATION DISCREPANCIES

1.0 Introduction

1.1 Any discrepancy noted by maintenance personnel is to be brought to the immediate attention of Quality Manager. Examples include any relevant noted discrepancy regarding part number or similar relationship to the part's CMM, AMM, or other documentation, condition of parts, signs of obvious previous unsatisfactory workmanship.

2.0 Procedure

2.1 Whenever maintenance personnel discover inaccurate, incomplete and ambiguous information in any Approved Publication/maintenance data, the person need to inform the Quality Department personnel by raising **GAM/E-002 Publication Discrepancies Notification/Amendment Request** and record the details of the data inaccuracies or discrepancies.

2.2 The QA personnel will acknowledge Engineering Manager / Senior Maintenance Manager and QM to review the report, for additional comment and authority to replace the publication, if required.

2.3 Further to the particular noting being raised by the individual, QM shall notify the type certificate or author of the Maintenance Data / Publication and request for a report.

2.4 Reply Report from the Type Certificate holder or maintenance data / publication author will effectively close out the corrective action.

2.5 A record of such communication should be retained until such time the author has clarified the issue by e.g. amending the maintenance date/publication.

2.6 If there is a question / doubt / delay in obtaining suitable reply, it will be quarantined until a suitable conclusion has been reached.

2.7 For state registered aircrafts, SMM shall forward the report to DAR to notify the status of the Approved Publication.

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MAINTENANCE PROCEDURE

1.0 Introduction

- 1.1 Aircraft maintenance is the performance of tasks required to ensure the continuing airworthiness of an aircraft or aircraft part, including overhaul, inspection, replacement, defect rectification, and the embodiment of modifications, compliance with airworthiness directives and repair.
- 1.2 Maintenance procedure must be in place to ensure compliance of maintenance program, recording of works, traceability and accountability from the beginning of works until the maintenance release is issue.

2.0 Procedure

- 2.1 Maintenance Planning section of the AMO shall constantly monitor status of the aircraft maintenance forecast including Deferred Maintenance, Service Bulletin and Airworthiness Directive compliance.
- 2.2 Any upcoming maintenance shall be planned with SMM or MM for compliance in term of aircraft downtime, manpower, tools and spares provisioning.
- 2.3 Planner shall raise the **GAM/E-001A Workpack** and **GAM/E-001B Work Sheet** specifying the task need to be performed together with **GAM/E-001D Part Report** to record the spares use in performing the required tasks. This set of paperwork is call check package for the complete maintenance to be carried out at that particular aircraft downtime.
- 2.4 Any defect found during schedule maintenance shall be recorded by the MI/S in a new **GAM/E-001B Work Sheet** and registered in the **GAM/E-001A Workpack** of the applicable check package.
- 2.5 The completed maintenance package will be issued to the maintenance personnel i.e MM / MI/S for compliance. Upon completion of the works the respective MI/S and ATP must certify the appropriate column with their signature/initial, date and approval stamp.
- 2.6 To complete the paperwork, all the necessary data must be filled-in by either the MI/S or ATP who performed and certify the works.
- 2.7 For maintenance that's involve robbing of parts from another aircraft EPM 1-09 Robbing Procedure and EPM 1-11 for Carry Forward Unserviceability.
- 2.8 A complete paperwork will shall be vetted by the Technical Record personnel to ensure the completeness and the maintenance forecast shall be updated accordingly stating a new due date.

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- 2.9 Technical Record shall make both softcopy and hardcopy for safe keeping. A scan copy of the paperwork will be saved in the Google Drive (Cloud storage). The original copy of paperwork will be handed over to the SAO for them to keep.

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TECHNICAL RECORDS PROCEDURE

1.0 Introduction

- 1.1 The Technical Records are responsible for updating and archiving of aircraft records following the requirements of TAMM Regulation 5.2.
- 1.2 This section outlines the procedure of managing the aircraft airworthiness records within the GAM organisation.

2.0 Procedure

2.1 Aircraft Journey Log Filing.

- a. Technical Record personnel shall be accountable to retrieve the completed AJL page by any means either received from Operator/AMO or personally obtain from the AJL.
- b. The AJL shall be reviewed by Technical Record to ensure that:
 - The AJL are properly filled and closed
 - The total flight hours, landing, start, cycle, etc. are correct
 - All open items in the AJL are closed with sign and stamp.
 - All Deferred Defect are recorded/closed in accordance with MMEL
- c. If any discrepancy is found within the AJL, Technical Record shall consult with the line maintenance as applicable for correction.
- d. The first copy is filed, and each aircraft registration shall have their own AJL file for record keeping purposes.
- e. The AJL would also require to be scan and stored in the server and hard disk, as a means of backup.

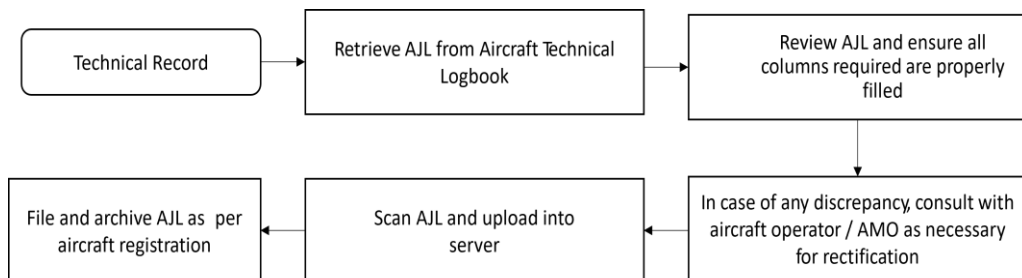


Figure 1 AJL Process Workflow

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2.2 Maintenance Records Updating.

All maintenance records shall be updated as soon as practicable but no later than within 30 days from the date of maintenance completion.

2.2.1 Log book Updating.

- i. A separate log book must be kept for each aircraft and engines.
- ii. 'Instruction for Use' of the log book and particulars to be recorded can be found in the Log Book itself.
- iii. Technical Record personnel shall make an entry in the log book in ink or using printed log book entry form.
- iv. Any error entry made in the log books shall be corrected with a single strikethrough and initialed upon. The use of any other correction method on the log books are not allowed.
- v. Only technical record personnel that have been assessed and authorised by SMM shall validate with his/her signature and stamp on the log books.
- vi. All entries in the log book using printed log book entry form and attached to the Log Book shall be stamped between the attached entries and Log Book for traceability if any alteration was made.
- vii. Technical Record personnel shall ensure that the data are correctly entered and reference of the previous log book document reference number are available whenever Log Book data transferring from other Log Book into new Log Book take place.

a. Aircraft Log Book.

Aircraft Log Book shall be used to record the following information:

- i. The date, together with total flight time and/or flight cycles and/or engine cycles and/or landings, as appropriate.
- ii. Particular of all maintenance work done on aircraft including reference to the relevant work pack.
- iii. Particular of all overhauls, repairs, replacement, modification and mandatory inspections to the aircraft or its equipment including reference to the relevant work pack.
- iv. Particular of any defect occurring in the aircraft or its equipment and the rectification of such defects, including reference to the relevant entries in the Journey Log.
- v. The result of test performed i.e. engine power assurance check, ground run, track and balance reading etc.
- vi. AD / SB / Modification compliance.

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b. Engine Log Book.

OEM engine log book shall be used to record the following information:

- i. The date, together with total flight time and/or flight cycles and/or engine cycles and/or landings and/or Time Since New (TSN), as appropriate.
- ii. Particular of all maintenance work done on the engine including reference to the relevant workpack.
- iii. Particular of all overhauls, repairs, replacements, modifications and mandatory inspections to the engine or its equipment.
- iv. Particular of any defect occurring on the engine or its equipment and the rectification of such defects, including a reference to the relevant entries in the Journey Log.
- v. Time Since New (TSN), Time Since Overhaul (TSO).
- vi. The result of test performed i.e. engine power assurance check.
- vii. AD / SB Compliance.

2.2.2 Log Card Updating.

- i. A component log card is required for monitoring each hard time component with their respective interval as listed in OEM Section 4 and Section 5 Time Limits of the maintenance publication.
- ii. The log card for components that are installed on the aircraft shall be in ATA chapter sequence compiled in the OEM Helicopter Log Book.
- iii. The replacements of component may be due to overhaul, scheduled / unscheduled inspections, and operational requirements
- iv. The log cards shall be updated for:
 - any installation/removal of components.
 - any maintenance inspection (including AD/ SB / modification) that had been carried out on the component.

a. Component Removal.

- i. Technical Record shall verify the correct P/N and S/N as per workpack raised and remove the log card from the logbook.
- ii. He/she shall then update the component log card for TSN and TSO hours during removal.
- iii. Log card for component removed from aircraft to be kept in store shall be removed and scanned before being kept in a separate quarantine file segregated by aircraft type and ATA Chapter.
- iv. Log card for component removed from aircraft for repair, replacement, or overhaul exchange shall be removed and scanned before sending for component processing.

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b. Component Installation.

- i. Verify the correct P/N and S/N as per workpack raised.
- ii. Check the status of component (either new, overhaul, repair, inspected or etc.) from the EASA/FAA form 1.
- iii. Check the hours for TSN and TSO from the ARC and component log card.
- iv. Update the log card for component installation details if not already have been filled by Part 145.
- v. The log card is scan and update in the server before kept in the log book.

2.2.3 Modification Record Book.

- i. The modification record book is a document to show the current aircraft AD, SB and modification status.
- ii. The document consists of a compilation:
 - Airframe and Engine AD compliance status.
 - Airframe and Engine SB compliance status.
 - Aircraft Modification/De-modification.
- iii. For repetitive ADs and SBs, only the last application should be recorded in the AD / SB compliance status.
- iv. The Airworthiness Directives, Service Bulletin, and Modification status report can be generated directly from AERONET for update in the Modification Record Book. The report generated needs to be verified and signed by the authorised Technical Record personnel.
- v. The Airworthiness Directives, Service Bulletin and Modification Status Report shall be updated and printed monthly every first week of the following month.

2.3 Airworthiness Records Filing, Retention and Archiving.

a. Airworthiness records shall include the following:

- i. Aircraft logbook.
- ii. Engine logbook(s).
- iii. Engine module log cards,
- iv. Service life limited component log cards.
- v. Aircraft Journey Log.
- vi. Modification record book.
- vii. Complete work packages.
- viii. Aircraft Certificate File.
- ix. Mass and Balance Report.

- b. Technical Records personnel shall ensure that the records listed above are retained for a period of at least 24 months after aircraft have been permanently withdrawn from service and AJL are retained for at least 36 months after the date of the last entry.

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- c. The aircraft records at GAM MMEA Office are stored in locked cabinet with controlled and restricted access.
- d. Technical Record personnel shall ensure the aircraft records shelves / compartment storage of each aircraft are properly labelled indicating the aircraft registration and serial number to which the records belong to.
- e. The label shall be affixed to the shelves / compartment storage by appropriate means and shall be easily identified the records for each aircraft.
- f. Technical Record personnel shall ensure that each individual binder or box can be properly identified of its contents and the attached decal is visible and readable.
- g. Technical Records personnel shall control all access to aircraft records. Any personnel other than Technical Record shall register into a registry logbook and shall be escorted by a Technical Record personnel to gain access to the requested records. Any records taken out from the record's cabinet shall be recorded in the registry logbook.
- h. Technical Records personnel shall carry out periodic inspection of the facility to ensure the good condition of the area and no damage due to weather or attacked and infested by termites and rats. This inspection must be duly recorded.
- i. Technical Record personnel shall ensure that all the records are also scanned, stored and updated into the server and hard disk every last week of the month as a means of backup and kept in.

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TERMS OF REFERENCE OF ENGINEERING PERSONNEL

1.0 Introduction

- 1.1 This EPM contained terms of reference for engineering personnel that have not laid out in the MMP.
- 1.2 All GAM personnel must acknowledge their responsibilities and his/her function in the Company before commencing any work to ensure company could operate in accordance with the approved MMP.
- 1.3 Senior Maintenance Manager (SMM) will review the overall terms and reference of engineering staff and may amend as required to suit Company operation.

2.0 Procedure

- 2.1 All new staff will be given their terms of reference before commencing any work in the company/when there is amendment on his/her terms of reference.
- 2.2 He/she must understand their roles and responsibilities in the Company.
- 2.3 Once agreed, he/she will sign the acceptance form. Any violation of his terms of reference during duty will be subject to disciplinary action.
- 2.4 Copies of acceptance form will be in personnel personal file in Quality Department office.

3.0 Terms of Reference

- a. Maintenance Inspector/Supervisor (MI/S)
- b. Authorized Tradesperson (ATP)
- c. Technical Record, Planning and Logistic
- d. Logistic Supervisor
- e. Tool Store man

a. Maintenance Inspector/Supervisor (Approval Holder)

Immediate Superior: Maintenance Manager (MM)

Main Responsibilities/function:

- 1) Carry out aircraft, components and ground equipment maintenance tasks efficiently.
- 2) Carry out and certify (as applicable) assigned tasks in accordance with the requirements of the MMP and EPM.

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- 3) Organize available manpower and other resources to meet operational requirements.
- 4) Ensure defects are rectified correctly in an efficient manner.
- 5) Exhibit high standard and quality of maintenance work and corresponding certification in accordance with company and DGTA requirements.
- 6) Co-ordinate and liaise with Supervisor or other relevant personnel to effect efficient maintenance action.
- 7) Ensure high standard of engineering housekeeping and security in the place of work such as aircraft interior/exterior, hangar, workshops and other engineering maintenance areas.
- 8) Ensure relevant documentation and procedures are in accordance to established practices.
- 9) Ensure technical instructions, manuals are in good condition and updated to current status when used.
- 10) Ensure correct inventory of special tool and support equipment are in serviceable condition for proper and safe usage.
- 11) Ensure personnel under his supervision namely Technicians maintain a high standard of personal and work discipline.
- 12) Maintain constant and effective communication with his superior, peers and subordinates.
- 13) Provide guidance and on-job-training to personnel under his charge to maintain desired quality and standard of work.
- 14) Act in the capacity of Engineering Maintenance Supervisor when required and/or called upon to do so and ensure proper hand-over is accomplished.
- 15) Cultivate a positive attitude and general respect for the compliance of industrial safety, health and environmental regulations, procedures and practices for personnel protection as well as company's interest.
- 16) Carry out any other duties assigned by immediate superior.

b. Authorized Tradesperson

Immediate Superior: MI/S

Main Responsibilities/function:

- 1) Carry out aircraft, components and equipment maintenance tasks efficiently.
- 2) Carry out and certify as required assigned tasks in accordance with the requirements of the MOE and Engineering Circular.

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- 3) Apply available manpower and other resources to meet operational requirements.
- 4) Communicate and liaise with LAE, Supervisor or other relevant personnel to effect efficient maintenance actions.
- 5) Exhibit high standard and quality of maintenance work and corresponding certification (if applicable) in accordance with company and DGTA requirements.
- 6) Ensure high standard of engineering housekeeping and security in the place of work such as aircraft interior/exterior, hangar, workshops and other engineering maintenance areas.
- 7) Ensure technical instructions, manuals are in good condition and updated to current status when used.
- 8) Cultivate a positive attitude and general respect for the compliance of industrial safety, health and environmental regulations, procedures and practices for personnel protection as well as company's interest. Monitor personnel under his supervision (if any) and maintain a high standard of personal and work discipline.
- 9) Carry out any other duties assigned by any duly delegated superior.

c. **Technical Record, Planning and Logistic**

Immediate Superior: MM

Main Responsibilities/function:

- 1) To support Senior Maintenance Manager by:
 - Providing engineering support, aircraft management, planning and logistic activities to meet requirements as Approved Maintenance Organization.
 - Administer on all matter related to Technical Records, Technical Library and Stores.
 - Implement co-ordination to ensure timely availability of parts and material to carry out maintenance of aircraft and other related engineering support tasks.
 - Providing aircraft maintenance logistic support in the time supply of the required parts and material.
- 2) Facilitate and manage all activities concerned with aircraft status, maintenance forecast and maintenance programs (Approved Maintenance Schedules) to support aircraft maintenance activities.
- 3) Maintains all necessary work records and logbooks, including certification in the aircraft permanent maintenance records that the aircraft is approved for return to services.

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- 4) Facilitate the provision of adequate facilities, supporting equipment and material to meet the requirements of Engineering Division.
- 5) In conjunction with Quality Manager, ensure that only spares materials, equipment and related goods of standards and conditions meeting the company and DGTA requirement are accepted for eventual use on company operated/handled aircraft and related areas supporting aircraft maintenance.
- 6) Ensure availability of proper storage, facilities, environment and layout which meets the requirement of DGTA for storage of aircraft parts.
- 7) Manages the procurement, overhaul, repair and exchange of aircraft components and equipment including liaising with vendors in an economical manner to the best advantage of the Company.
- 8) Maintain a Central Publication Section to handle and control publication applicable to the types of aircraft and equipment operated/handled by the company, local and foreign airworthiness publications, Maintenance Schedules and other related documents. Ensures an efficient system is maintained for control, amendments and dispatch of the publications.
- 9) To ensure that all audit findings carried out internally and by DGTA are attended to and resolved within the agreed timeframe.
- 10) Organize and maintain Technical record system to retain, update and provide accurate maintenance and operational histories of aircraft, engines, components and associated equipment in accordance with the Company/DGTA requirement.
- 11) To complete and submit to Quality Assurance Department, various relevant documents required for the renewal of Certificate of Airworthiness of aircraft.
- 12) To ensure aircraft maintenance records are maintained up to date in accordance with the requirement of DGTA and other relevant airworthiness authorities.
- 13) Responsible for the commissioning of required tooling, equipment and ground support equipment (GSE) and management of such asset necessary for the completion of work planned by the Company. This includes establishment of calibration program for calibrated tools & equipment.
- 14) Carry out other tasks assigned by Senior Maintenance Manager.

d. Logistic Supervisor

Immediate Superior: MM

Main Responsibilities/function:

- 1) Responsible for economical expenditure of Company budget relating to purchasing and stocking of material.

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- 2) Ensure all store procedures required by regulation, Company and Quality Assurance Department are implemented and adequately maintained.
- 3) Ensure the purchasing of spare parts and materials is carried out according to Company's operational and contractual requirements.
- 4) The maintenance, control and administration of aircraft stores in compliance with MMP, DGTA, EPM and quality requirements.
- 5) Maintained up-to-date stock movement on an adequate inventory control system.
- 6) Ensure stocks/spares are maintained in realistic and economical level (in conjunction with Maintenance Planning)
- 7) Maintain an efficient store services to cover all contractual requirement, including packing of spares and tooling using proper containers in accordance with the normal airline standard practices of packaging.
- 8) Liaison with Planning HOD in preparation of Repair and Shipping Orders.
- 9) Monitor repair items send out for repair/overhaul and follow up on the progress.
- 10) Incoming inspection i.e. acceptance of aircraft parts/spares and incoming documentation.
- 11) Ensure that all parts are binned and stores in a systematic manner in bonded stores.
- 12) Monitoring of shelf life
- 13) Administration and filing of all incoming documentation for traceability.
- 14) To control/manage Quarantine store and tooling for calibration
- 15) Such other duties as assigned by HOD/SMM or QAM.

e. Tools Store man

Immediate Superior: MM

Main Responsibilities/function:

- 1) Ensure overall activities of the store comply with airworthiness requirement and Company procedures and maintain accurate records of all incoming parts for traceability of history.
- 2) Verify the airworthiness of all incoming aircraft parts by examining accompanying document and physical inspection to ensure compliance with the regulation.
- 3) Keep surveillance of all activities relating to preservation, packing, storage, dispatch of aircraft parts to ensure airworthiness requirement, manufacturer recommendation and company's procedures are met

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- 4) Monitor all spare parts and component affected by Mandatory Modification and Service Bulletin and ensure that all requirements are met before due date.
- 5) Carry out investigation and take appropriate action for any discrepancies on aircraft spares and equipment.
- 6) Ensure all parts released from Bonded Store are in accordance with Company's Procedures.
- 7) Monitored continued serviceability of all aircraft spares and materials in Bonded Store.
- 8) Ensure that Bonded, Quarantine, Commercial and Inflammable storage are segregated.
- 9) Advice other store personnel on matter related to preservation, protection and transportation of aircraft parts.
- 10) Ensure that all aircraft special tools and equipment are maintained in good condition and where applicable monitors the calibration schedule.
- 11) Ensure parts are received, identified, labeled, binned, stored and dispatched in accordance with company procedure and aviation regulations.
- 12) Maintain and update parts and logistic records including proper filing system of documents such as material issue voucher, part release certificate, log cards, custom form, shipping invoice, permit application.
- 13) To ensure that proper and complete documentation is received for all incoming shipment.
- 14) Raise scrap report once parts are deemed scrapped by the engineer/authorized personnel.
- 15) Maintain cleanliness and condition of Bonded Store including the POL store. To regularly monitor and record Bonded Store humidity and temperature.
- 16) Maintain and control of issue and return of tools and test equipment tools from tools store.
- 17) Maintain record and track calibrated test equipment and precision tools and to advice superior for any near due date for necessary action.
- 18) Carry out period check on material handling equipment, fire extinguisher, weighing scale, first aid kit and special tools and to report any abnormalities.
- 19) Any other task deems fit by his/her supervisor.

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JOB COMPETENCE ASSESSMENT

1.0 Introduction

- 1.1 All AMO personnel; MM, MI/S, ATP and NTP are required to be assessed for competency, qualification and capability related to their intended duties as per MMP 3.1 Key Personnel Maintenance Authority.
- 1.2 Competence should be defined as measurable skill or standard of performance, knowledge and understanding, taking into consideration attitude and behaviour of the staff.
- 1.3 SMM will conduct the assessment to all personnel as per MMP 3.1 and decide if the personnel competent for their respective post.

2.0 Philosophy of Competence Assessment

- 2.1 There are a number of acceptable means in which this assessment may be carried out, but the following points need to be considered to establish an assessment procedure:
 - a. Competence and capability can be assessed by working the employee under the supervision of either another certifying employee or a quality auditor for sufficient time to arrive at a conclusion as to the employee's competence. Sufficient time could be as little as a few weeks if the person is fully exposed to relevant work. It is not required to assess the employee against the complete spectrum of intended duties.
 - b. When the individual has been recruited from another (previous) AMO and was certifying personnel in that organisation for the same post and type of aircraft, GAM AMO may accept the individual's competency and capability.
 - c. Qualification and competency assessment may be achieved by collecting copies of documents that attest to qualification and competencies achieved, such as licences and authorisations held by an individual. This should be followed by a confirmation check with organisations that issued the documents and finally a comparison checks for differences between any product type ratings on the qualification documents and the relevant product types maintained by GAM. Product type differences may identify the need for additional training and assessment prior to certification authorisation by GAM.
- 2.2 Competence should be assessed by evaluation of:
 - a. On-the-job performance and/or testing of knowledge by appropriately competent assessor, and
 - b. Records for basic, organisational, and/or product type and differences training, and experience records.
- 2.3 Validation of the above could include a confirmation check with the organisation(s) that issued such document(s).

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- 2.4 As a result of this assessment, an individual's qualification should determine:
- a. Which level of on-going supervision would be required or whether unsupervised work could be permitted.
 - b. Whether there is a need for additional training.
- 2.5 The following should be considered for the competency assessment can be carried out effectively:
- a. In accordance with the job function, adequate initial and recurrent training should be provided and recorded to ensure continued competence so that it is maintained throughout the duration of employment/contract.
 - b. All staff should be able to demonstrate knowledge of and compliance with the maintenance organisation procedures, as applicable to their duties.
 - c. All staff should be able to demonstrate an understanding of safety management principles, human factors and human performance issues in relation with their job function.
 - d. To assist in the assessment of competence and to establish the training needs analysis, job descriptions are recommended for each job function in the organisation. Job descriptions should contain sufficient criteria to enable the required competence assessment.
 - e. Criteria should allow the assessment to establish that, among others:
 - **MM** are able to properly manage the work output, processes, resources and priorities described in their assigned duties and responsibilities in accordance with the safety policy and objectives and in compliance with safe compliant manner in accordance with the applicable requirements regulations and organisation procedures.
 - **M/S** are able to ensure that all required maintenance tasks are carried out and, where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance data, then such problems will be reported to the QA person for appropriate action. In addition, for those supervisors who also carry out maintenance tasks, that they understand such tasks should not be undertaken when incompatible with their management responsibilities.
 - **ATP** are able to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of defects or mistakes requiring rectification to re-establish required maintenance standards.
 - **NTP** are able to demonstrate and understanding his/her job function and being able to prove that he/she is competent to work on the aircraft.
 - All staff are familiar with the safety policy and the procedures and tools that can be used for internal safety reporting. Competence assessment should be based upon the procedure specified in.

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2.0 Procedure

- 2.1 The person responsible for the procedure shall be the SMM who shall control and ensure the procedure is up to the current standard and in compliance to the requirement of DGTA.
- 2.2 The competence assessment shall apply to all AMO Personnel and shall be carried out corresponding to the duties and responsibilities of each position held by the personnel as stipulated in the MMP and engineering procedure manual.
- 2.3 The initial competence assessment shall be carried out before the personnel are to be allowed to assume their duties and responsibilities of their job functions. Scheduled competence assessment shall also be carried out annually and the recorded result shall be retained in the respective staff Personal File.
- 2.4 Unscheduled competence assessment may be called up by SMM should there be a report saying the competency of a staff is found to be in doubt.
- 2.5 Evidence gathering by the SMM shall include the staff work performance, interviews, feedback from the superior as well as performance of section the personnel is handling. However, the primary medium of the assessment shall be interviewing the personnel. The result and recommendation shall be recorded in the Competence Assessment form.
- 2.6 Based on the result of the assessment, the SMM shall review the findings and consult Quality Manager to formulate on steps to be taken to overcome the shortcomings found during the assessment, should further training viewed as one of the ways which could further improve; it should be included in the training plan.
- 2.7 SMM may also consult Quality Manager should an unsatisfactory result of the competence assessment reported by the competent assessor which may include suspension of the personnel from assuming their duties until they are found to be competent during reassessment.
- 2.8 The competency assessment shall be carried out according to the job functions and the scope, size, and complexity of the department. The assessment may consider the following (the table is not exhaustive):

	MM	M/S	ATP	NTP
Knowledge of applicable officially recognised standards	X	X		X
Knowledge of auditing techniques: planning, conducting and reporting	X			X
Knowledge of human factors, human performance and limitations	X	X	X	X
Knowledge of logistics processes	X	X		
Knowledge of organisation capabilities, privileges and limitations	X	X		
Knowledge of MMP, MMP and EPM.	X	X	X	X
Knowledge of occurrence reporting systems (mandatory and internal) and understanding of the importance of reporting occurrences, incorrect maintenance data and existing or potential defects	X	X	X	X
Knowledge of safety risks linked to the working environment	X	X	X	X
Knowledge of Safety Management Systems and Just Culture	X	X	X	X
Understanding of professional integrity, behaviour and attitude towards safety	X	X	X	X

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Understanding of conditions for ensuring continuing airworthiness of aircraft and components	X	X	X	X
Understanding of his/her own human performance and limitations	X	X	X	X
Understanding of personnel authorisations and limitations	X	X	X	X
Understanding critical task	X	X		X
Ability to compile and control completed maintenance documentation		X	X	X
Ability to consider human performance and limitations.	X	X	X	X
Ability to determine required qualifications for task performance	X	X		
Ability to identify and rectify existing and potential unsafe conditions	X	X		
Ability to manage third parties involved in maintenance activity	X	X		
Ability to confirm proper accomplishment of maintenance tasks		X	X	X
Ability to identify and properly plan performance of critical task		X		
Ability to prioritise tasks and report discrepancies		X	X	
Ability to process the work requested by the operator		X		
Ability to promote the safety and quality policy	X	X		
Ability to properly process removed, uninstalled and rejected parts		X	X	X
Ability to properly record and sign for work accomplished		X	X	X
Ability to recognise the acceptability of parts to be installed prior to fitment			X	
Ability to split complex maintenance tasks into clear stages	X	X		
Ability to understand worksheet and refer to and use the maintenance data	X	X	X	X
Ability to use information systems	X	X	X	X
Ability to use, control and be familiar with required tooling and/or equipment		X	X	X
Adequate communication and literacy skills	X	X	X	X
Analytical and proven auditing skills (for example, objectivity, fairness, open-mindedness, determination, ...)				X
Maintenance error investigation skills	X	X		X
Resources management and production planning skills	X	X		
Teamwork, decision-making and leadership skills	X	X		
Ability to encourage a positive safety culture and apply a just culture	X	X		

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INTERNAL TRAINING

1.0 Introduction

- 1.1 The purpose of this leaflet is to outline the training policies and procedures for mainly the Certifying and Non-Certifying staff that are involved directly or indirectly in the operation, performance and the maintenance of the aircraft
- 1.2 SMM shall be responsible to identify, determine and provide training to all Certifying and Non-certifying personnel based on actual manpower planning decision.
- 1.3 The Quality Department shall assist the SMM to identifying the training needs. SMM shall forward the training requirement to Quality Department for consolidation and budget application to Accountable Manager.
- 1.4 The Quality Department shall formulate a Training Schedule/Calendar annually based on the user department training requirements. New courses may be developed after appropriate Training Requirement Analysis is carried out.
- 1.5 Courses that are not within the capability of Quality Department, shall be sourced out externally. Quality Department shall co-ordinate by sourcing and recommending these courses to the Accountable Manager.
- 1.6 Training is generally divided into two types:
 - a. Initial Training.
 - b. Continuous Training

2.0 Initial Training

- 2.1 Initial training is provided to ensure that all Certifying and Non-Certifying Staff whose work / activities affect airworthiness and service quality are provided with the necessary knowledge, skills and experience to enable them to perform activities on aircraft and aircraft components to the required quality standards.
- 2.2 The following courses which are applicable to either Certifying or Non-Certifying personnel involved with maintenance activities will be conducted internal by the company:
 - a. Aircraft General Familiarization.
 - b. Regulation
 - c. Procedure
 - d. Human Factor
 - e. Safety

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3.0 Continuous Training

- 3.1 Continuous training is provided to ensure that all-certifying and non-certifying staff whose work affects airworthiness and service quality are continuously updated on changes to company and aircraft procedures.
- 3.2 It also ensures that aircraft are maintained to the required standard subsequent to their initial training.
- 3.3 The continuous training course packages and practical training shall include technical information on the modifications and changes in the maintenance procedures on the aircraft types operated by the company.
- 3.4 Continuous Training may be given in the following forms:
- a. Practical Training – training conduct by SMM/ MM or appointed personnel by SMM during aircraft maintenance.
 - b. Briefing Session – semiformal training by MI/S using training video equipment and other training aids, to train small groups of Certifying or Non-certifying staff under their control.
 - c. Formal Classroom – formal classroom training to cover such subjects which related to maintenance activities or engineering procedure.
 - d. Circulation – by circulation of Airworthiness Circular (AWC) and related manufacturer’s publication.

4.0 Evidence of training

- 4.1 SMM shall verify the schedule/ material of training aids are suitable for the training purposes.
- 4.2 The training shall be recorded with an evidence such as below and validate by SMM or Quality Department.
- a. Certificate.
 - b. Attendance.

5.0 Instructor

- a. Theoretical Instructor

The qualifying and selection criteria of instructor referred to Appendix 5-03A and Appendix 5-03B.

- b. Practical Instructor

SMM shall verify and qualified the Practical Instructor for the purpose of training.

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INTERNAL TRAINING - QUALIFYING THE INSTRUCTORS

1.1 PURPOSE

To stipulate the qualification, experience and requirements for nominated Instructors.

1.2 RESPONSIBILITIES

This procedure is applicable to the following personnel:

- a. Senior Maintenance Manager.
- b. Quality Manager.
- c. Instructor.

1.3 PROCEDURES

- a. Senior Maintenance Manager shall review the personnel and qualifications as follows and recommend to Quality Manager for approval:
 - i. Formally trained Aircraft Technicians with a minimum of eight (8) years of aircraft maintenance experience and at least three (3) years experience as an Approval/ Authorization Holder (includes experience from previous company / companies) ; **OR**
 - ii. Licensed Aircraft Maintenance Engineers with a minimum of five (5) years of aircraft maintenance experience; **OR**
 - iii. Minimum two (2) years working experience as supervisors or higher positions in ramp handling of aircraft for conducting ramp handling course; **AND**
 - iv. Must have attended the related Aircraft System Type training for the applicable training to be teach; **AND**
 - v. Must have attended the Train the Trainer course or Presentation Skills/ Techniques course.
 - vi. It is required that all applicants for candidacy for instructional job shall have their backgrounds and qualifications checked/verified with the respective establishments prior to considering employment.
- b. Alternatively, Senior Maintenance Manager may approve the personnel as in-house Instructor and endorse the Instructor's Records as such after a satisfactory Instructor Appraisal Proforma assessment on the related teaching subjects.

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- c. Senior Maintenance Manager may also utilize appropriately qualified and experienced personnel within AMO Department or arranged contract agent as Instructors.
- d. Instructors may be required or assigned to perform the functional of an Examiner, to invigilate an examination for other candidate / classes, and as an assessor. As an Examination for other candidates/classes, and assessor. As an Examiner/Assessor, he/she shall ensure that the examination is performed and assessed with utmost integrity and level of accountability.
- e. Galaxy Aerospace AMO shall maintain for each instructor, a record that reflect the instructors experience and the course they are qualified to conduct, as approved by the Senior Maintenance Manager.
- f. Instructors may undergo updating training relevant to technology updates, human factors, latest practical skills and training techniques appropriate to their field of training including aircraft type, once in every twenty-four (24) months.
- g. The individual records of the instructors are maintained by Galaxy Aerospace AMO and the Training attended shall be reflected on each Instructor's personal record file.

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INTERNAL TRAINING - SELECTION CRITERIA OF INSTRUCTOR

1.1 QUALIFICATION, TRAINING AND EXPERIENCE.

APPOINTMENT	APPOINTED BY	SELECTION CRITERIA	REMARK
Approved Instructor	Senior Maintenance Manager	<p>1. Formally trained Aircraft Technicians with a minimum of eight (8) years of aircraft maintenance experience and at least three (3) years experience as an Approval / Authorization Holder (includes experience from previous company / companies);</p> <p style="text-align: center;">OR</p> <p>2. Licensed Aircraft Maintenance Engineers with a minimum of five (5) years of aircraft maintenance experience.</p> <p style="text-align: center;">OR</p> <p>3. Minimum two (2) years working experience as supervisors or higher positions in ramp handling of aircraft for conducting ramp handling course. AND</p> <p>4. Must have attended the related Aircraft System Type training for the applicable training to be conducted. AND</p> <p>5. Must have attended the Train the Trainer course or Presentation Skills / Techniques course.</p>	

RESULT: Approved for Theoretical /Practical Instructor

NOTE:

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Date:

Sign:

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APPENDIX 1 - LIST OF GAM FORM

NO	FORM REG NO.	DESCRIPTION
1	GAM/E-001A	Workpack
2	GAM/E-001B	Worksheet
3	GAM/E-001D	Parts Report
4	GAM/E-002	Publication Discrepancies / Amendment Request
5	GAM/E-003	-Removed-
6	GAM/E-003A	Component Discrepancy Report
7	GAM/E-004	Goods In Notes Register List
8	GAM/E-005	Serviceable Label (Aeronet System)
9	GAM/E-006	Unserviceable Tag
10	GAM/E-007	Quarantine Tag
11	GAM/E-008	Shelf-Life Expiry Master Register
12	GAM/E-011	Vendor Request Form
13	GAM/E-016	Tools Masterlist
14	GAM/E-017	Cannibalization Tag
15	GAM/E-018	Holding Tag
16	GAM/E-019A	Request for Once Off Authorisation
17	GAM/E-020A	Publication Master Listing
18	GAM/E-025	Tool Control Register
19	GAM/E-027	Missing Tool Declaration
20	GAM/E-031	Quarantine List
21	GAM/E-034	GSE Inspection Sheet
22	GAM/E-041	Acceptance Report (Aeronet System)
23	GAM/E-043	Out of Base Tool Control Records
24	GAM/E-046	Un-Airworthy / Maintenance Incident Report
25	GAM/E-047	Technical Information Review
26	GAM/E-048	Aircraft Deferred Defect Record
27	GAM/E-049	Ground Run / Test Flight Report Form
28	GAM/E-056	Unreturned Tool Control List

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26	GAM/E-062A	Alternate Tooling Records Form
27	GAM/E-065	Tools Loan Register
28	GAM/E-074	Aircraft Deferred Defect Form
29	GAM/E-080	Publication User Listing
30	GAM/Q-003	Vendor Quality Assurance Evaluation Questionnaires
31	GAM/Q-007	Audit Plan
32	GAM/Q-008B	AMO DGTA Audit Checklist
33	GAM/Q-009	Audit Report
34	GAM/Q-010	Non-Compliance Request
35	GAM/Q-012	Application for Company Approval
36	GAM/Q-013B	Company Approval Certificate
37	GAM/Q-015A	Job Competency Assessment
38	GAM/Q-015B	Written Assessment Form
39	GAM/Q-020	List Of Approved Instructor
40	GAM/Q-027	Company Approval Certificate Register
41	GAM/Q-034	Audit Authorisation
42	GAM/Q-034A	Quality Auditor Checklist
43	GAM/Q-035	Quality Assurance Personnel Auditor's Audit – Log Book
44	GAM/Q-045	Training Evaluation Form
45	GAM/Q-048	Training Instructor Assessment Checklist
46	GAM/Q-057	Maintenance Support Network
47	GAM/Q-067	Internal Publication Masterlist
48	GAM/Q-070	Document Change Request
49	GAM/Q-071	Vendor Audit Checklist

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